Annual Report 1982

AKZO

Contents

Agenda

Agenda of the Annual Meeting of Stockholders to be held at the RAI Congress Center, Europaplein, Amsterdam, on Tuesday, May 10, 1983, at 10.30 a.m.

1 Opening

2 Report of the Board of Management for the fiscal year 1982

3 Approval of the financial statements; consideration of the dividend proposal

4 Proposal to amend the articles of association

5 Proposal to designate the Board of Management as entitled to issue shares and to restrict or disregard the preemptive rights of stockholders

6 Proposal to authorize the Board of Management to acquire shares in the Company on behalf of the Company

7 Determination of the number of members of the Supervisory Council; appointment of members of the Supervisory Council

8 Any other business

Akzo

Translation; in the event of any conflict in interpretation, reference should be made to the Dutch version.

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Financial highlights

	1982	1981	change
in Hfl million			
sales	14,154	14,476	−2%
operating income	493	564	−13%
net income	165	239	−31%
stockholders' equity	2,488	2,449	+2%
per common share of Hfl 20 par value, in Hfl			
net income	5.56	8.07	−31%
dividend	1.60*	2.00	−20%
stockholders' equity	84.06	82.72	+2%

additional current-value information (see pages 44 and 45)

	1982	1981	change
in Hfl million			
net income	49	62	−22%
stockholders' equity	3,212	3,206	
per common share of Hfl 20 par value, in Hfl			
net income	1.65	2.11	−22%
stockholders' equity	108.52	108.32	

* of which Hfl 0.60 in cash or, at stockholder's option, in common stock

Akzo

Akzo is an international group of companies with operations in more than 50 countries.

Akzo's product range includes man-made fibers, salt, commodity and specialty chemicals, coatings, pharmaceuticals, consumer products, and miscellaneous industrial products.

Akzo's worldwide business activities are organized in the Enka, Akzo Zout Chemie, Akzo Chemie, Akzo Coatings, Akzo Pharma, and Akzo Consumenten Produkten divisions, and in Akzona which concentrates its efforts on the North American market.

In the Netherlands, Belgium, Brazil, and Japan, Akzo has central organizations which have a coordinating function and render services to local Akzo companies.

With almost 74,000 employees at year-end, the Group achieved consolidated sales of Hfl 14.2 billion in 1982.

Akzo recognizes the importance of good communications regarding its policies and activities with those who are directly or indirectly involved with the Group. It accepts the codes of conduct established by the Organisation for Economic Co-operation and Development (OECD) and the International Labour Organisation (ILO).

Supervisory Council and Board of Management

Supervisory Council

G. Kraijenhoff, Chairman
J.R.M. van den Brink, Deputy Chairman
Y. Scholten, Deputy Chairman
S.C. Bakkenist
A.G. van den Bos
P.M.H. van Boven
A. Herrhausen
H.L. Merkle
H.J. Schlange-Schöningen
Mrs K. Schudel-van Zwanenberg
H.A. van Stiphout
E.G.G. Werner
O. Wolff von Amerongen

Board of Management

A.A. Loudon, President
J. Veldman
H.J.J. van der Werf
H.G. Zempelin

Adviser: W.K.N. Schmelzer

Secretary

J.P. Huges

Management Committee

In addition to the members of the Board of Management, the Management Committee includes:

S. Bergsma
F.A.G. Collot d'Escury
M.W. Geerlings
J.R. Hutter
H.B. Jacobs
A.G. Vermeeren
M.D. Westermann
C. Zaal

Report of the Supervisory Council

Changes in the Supervisory Council

At the Annual Meeting of Stockholders held May 18, 1982, G. Kraijenhoff, Chairman, and A. Herrhausen and H.J. Schlange-Schöningen, whose terms of office had expired, were reappointed to the Council.

The Meeting adopted the proposal to increase the Council's membership from 11 to 13. A.G. van den Bos, formerly President of the Board of Management, and H.A. van Stiphout were appointed to the Council.

At the Annual Meeting of Stockholders convened for May 10, 1983, Mrs K. Schudel-van Zwanenberg, P.M.H. van Boven, H.L. Merkle, and O. Wolff von Amerongen will resign from the Supervisory Council. Mr Wolff von Amerongen is resigning because his term of office is expiring. He is willing to accept a new term, and we recommend that he be reappointed.

Mrs Schudel-van Zwanenberg, Mr van Boven, and Mr Merkle are retiring as they will have reached the Council's mandatory retirement age. For many years they have given the Company the benefit of their wisdom and experience, and we are deeply beholden to them. Stockholders will be asked to reset the number of members of the Council at 11 and to approve the appointment to the Council of C.S. Ramsey, Chairman of the Advisory Council of Akzona Inc., thereby filling the vacancy.

Changes in the Board of Management

At the Annual Meeting of May 18, 1982, A.G. van den Bos (President), H.J. Kruisinga, and H. van Doodewaerd retired from the Board.

Mr van den Bos deserves our recognition for his business acumen as well as for his humanity as demonstrated over the nearly thirty years of his association with Akzo and its people.

Mr Kruisinga has shown outstanding ability in directing the Company's financial affairs, with his skills and resourcefulness having been put to exceptional tests over the difficult years of restructuring.

Mr van Doodewaerd has completed a distinguished career of more than forty years in consumer products. He will be remembered for his stimulating leadership of Akzo Consumenten Produkten, whose President he was since 1973.

Following approval by stockholders of the proposal to change the organizational structure of the Company's top management at the Annual Meeting of May 18, 1982, M.W. Geerlings, M.D. Westermann, and C. Zaal resigned from the Board but continued to exercise their functional and operational responsibilities.

With effect from June 1, 1982, the Board of Management consists of four members — A.A. Loudon, J. Veldman, H.J.J. van der Werf, and H.G. Zempelin — who are jointly responsible for the overall management of the Group. Its members also sit on the Management Committee, formed at the same time to assist in policy-making, with a number of senior officers with operational or functional duties.

Supervision

We regularly received reports on the business of the Company. Items of key importance for the future of the Group are the acquisition of the third-party-held minority interest in the equity of Akzona Inc. and the decision to go ahead on the aramid fiber project. We are pleased to record here that the steps taken in past years to discontinue loss-making operations are beginning to have an impact on the Company's performance.

We herewith submit to you for approval at the Annual Meeting of May 10, 1983, the financial statements for 1982 as prepared by the Board of Management. These financial statements have been examined by Klynveld Kraayenhof & Co., *Registeraccountants*. Their report appears on page 49.

We have approved these financial statements and the Board of Management's proposal made therein with regard to the allocation of profit.

Acceptance of this proposal by stockholders will provide for a dividend of Hfl 1.60 per common share of Hfl 20 par value. Of this amount, Hfl 0.60 will be paid in cash or, at stockholder's option, in common stock, chargeable to capital surplus, at the rate of one new common share of Hfl 20 par value for every 50 shares of common stock held.

We recommend that you also approve the financial statements, thus discharging the responsibility of the members of the Board of Management for their conduct of the business and of the members of the Supervisory Council for their supervision.

Arnhem, March 25, 1983

For the Supervisory Council,

G. Kraijenhoff,
Chairman

Report of the Board of Management

General review

Reasonable performance

In last year's annual report we said that the achievement of reasonable results should be within our reach, provided that economic conditions would not deteriorate further. Despite the fact that the general economy slipped into a deeper recession, the Group registered a net income of Hfl 165 million (1981: Hfl 239 million). In light of the present state of economy we are not dissatisfied with this result, the less so as 1982's performance was adversely affected by extraordinary items. Before extraordinary items net income was Hfl 211 million in 1982, compared with Hfl 224 million in 1981.

It should also be taken into account that in the year under review sales were down 2% to Hfl 14.2 billion. Shipments declined approximately 6%, which illustrates the effect of the global recession.

Net income on a current-value basis was Hfl 49 million, against Hfl 62 million in 1981.

The positive results achieved in the last two years mirror the effect of a corporate strategy that places great emphasis on improvement of the Group's structural profitability.

A major factor in this improvement was the performance of our pharmaceuticals which, along with our coatings, consumer products, and certain miscellaneous products, made the principal contribution to the Group's 1981 and 1982 earnings. The improvement of Enka Europe's man-made fiber business and the reasonable performance of our chemicals in the face of the recession have also strengthened the Group's earnings base in the last two years.

The acquisition of the third-party-held minority interest (34%) in Akzona Inc. (United States) at an amount of Hfl 188 million should in time also make a contribution to income because of the enhanced possibilities of pursuing an optimal and global product policy.

In furtherance of such policy, Akzo Chemie and Armak (Akzona) have begun to implement integrated management for specific products, while Akzo Pharma is putting high priority on strengthening and expanding its position on the North American market.

To enable the Group to make better use of the

The Akzo Board of Management: (left to right) H.J.J. van der Werf, J. Veldman, A.A. Loudon (President), and H.G. Zempelin.

opportunities offered by this market a revision of Akzona's product mix will be necessary in the near future. In early 1983 it was decided to sell Brand-Rex (electrical/electronic wire and cable products and systems).

Dividend proposal

The 1982 results have occasioned us to propose to the Annual Meeting of Stockholders that the 1982 dividend be fixed at Hfl 1.60 per common share of Hfl 20 par value. Of this amount, Hfl 0.60 per share will be paid in cash or, at stockholder's option, in common stock, chargeable to capital surplus, at the rate of one new common share of Hfl 20 par value for every 50 shares of common stock held.

Adoption of the proposal means that of net income in the amount of Hfl 165 million, an amount of Hfl 47 million will be appropriated for distribution as a dividend, while an amount of Hfl 118 million will be retained.

Management structure

The establishment of a smaller Board of Management and of the new Management Committee which assists the Board in policy-making has enhanced the possibilities of a more integrated management, without affecting the principle of the delegation of powers to the managements of divisions and operating companies.

It is our belief that this new management structure is necessary to give more forceful direction to the Group.

Particularly in periods of little or no economic growth, considerable demands have to be made on the resourcefulness and flexibility of the organization in order to realize further adjustment and rejuvenation of the Group. Within this scope an investigation is currently being made into the efficiency of the overhead and service sectors of the various corporate and divisional departments. The direct operations are not involved in this investigation.

Our objective to make the entire Akzo organization function as a more integrated whole has great priority.

Economic climate

Last year there were high hopes for a recovery of the economy in the course of 1982. In fact, the recession got worse in many countries. In addition to slumping productivity, higher unemployment figures, and soaring government deficits, the problems were aggravated by growing protectionism, which threatens to impede a recovery of world trade, and hence of the general economy.

A dangerous development is that an increasing number of countries have difficulty in financing their imports. This hampers trade and has already affected our exports to some of them.

Bright spots were the decline in the rates of inflation in a number of countries that are of importance to our operations, and the decrease in interest rates that commenced in mid-1982. In the United States there are some signs of an economic revival, which should provide an additional stimulus for the much needed improvement in Akzona's performance.

If the American economy picks up, economic conditions in Europe should also improve, albeit with some delay. The process of economic recovery is very likely to be impeded, however, by the rigidity of the socioeconomic structure in a large number of Western European countries, which has been a major factor in the surging government financing deficits.

A substantial part of our products go directly or indirectly to the textile, automotive, and building industries — all segments that are badly hurt by the recession. Consequently, a revival in these sectors is bound to have an appreciable effect on our results.

Our companies in the Netherlands and the Federal Republic of Germany are primarily export-oriented. In 1982, exports accounted for approximately 55% of the Hfl 7.9 billion sales of our companies in these two countries. While it is necessary that industry and trade recover, it is equally of vital importance that the European countries should continue the building of a common market.

In general, we wish to stress the desirability of putting a halt to further protectionist measures spurred by the current crisis of the world economy.

Man-made fibers

Enka Europe is now beginning to reap the benefits of the restructuring policies initiated in 1975. The earnings base has been strengthened by a substantial reduction in the share of synthetic textile and carpet fibers, the consolidation of the industrial yarn operations, and the successful development of new products, along with adaptation and streamlining of the organization. However, a further improvement in profitability is necessary.

Key developments in the year were the accord concluded by European fiber producers on a further adjustment of production capacities and our decision to go ahead with the aramid fiber project.

The European fiber agreement signed by the ten largest European producers provides for cuts in synthetic textile and carpet fiber capacity by about 0.5 million metric tons to 2.4 million metric tons in the period through 1984. When the 1981 rationalization program is completed with the shutdown in 1982 of the Antrim plant (Northern Ireland) and of the Breda plant (the Netherlands), and with the complete closure in 1984 of the Kassel plant (Federal Republic of Germany), Enka will have fulfilled its share in the capacity cuts for these fibers.

Whether the European synthetic fiber capacity remaining in 1985 will be in balance with actual demand is dependent upon developments in textile consumption and textile imports into the EEC. These are the main factors affecting the textile and fiber industries in Northwestern Europe.

Continued high losses of Enka Austria have led to an agreement with the Austrian government at year's end under which we are to transfer ownership of this rayon fiber company on March 31, 1983.

Following a development stage that commenced at Enka research in 1968, it was decided in the year under review to go forward on the aramid fiber project. This project embraces the construction of plants at Delfzijl (raw materials) and Emmen (spinning). At the end of 1985 the Aramide Maatschappij v.o.f., a fifty-fifty joint venture to be established together with the Noordelijke Ontwikkelings-maatschappij (a Dutch government-sponsored development corporation), is to have an annual production capacity of 5,000 metric tons.

The aramid fiber has an exceptionally high strength and may find application in entirely new areas. Although our and Du Pont's appreciations of the patent position differ, we trust that we will be able to undertake successful commercialization of this unique product.

Chemical products

Current structural overcapacities in the petrochemical and bulk chemical industries are forcing producers to implement drastic measures. Their urgency has become even greater because of new facilities now under construction, notably in some OPEC countries.

With the structure of the product ranges of these industries being as complex as it is, action by producers in Western Europe to reduce capacity in specific product areas is necessary and to be preferred over action on the part of national governments or European authorities. A continuation of the vital role of the Western European petrochemical and chemical industries as producers and exporters calls for international solutions without the restoration of profitability being interfered with by national governments.

For major plastics and their basic materials, including vinyl chloride monomer (VCM) and polyvinyl chloride (PVC), the excess capacity in Western Europe is about 40%. Technologically, Akzo Zout Chemie has a very strong position in the production of salt, chlorine, and VCM in the Netherlands. However, the company's competitiveness will remain weak so long as Dutch electricity rates are not further adjusted to those in other countries and so long as overheads are not reduced. In order to successfully face stiffer competition in the years ahead Shell Nederland Chemie B.V. (ethylene supplier and PVC producer) and Akzo Zout Chemie Nederland B.V. have set up a combined operation named ROVIN (Rotterdamse Vinylunie v.o.f.).

Akzo Chemie and Armak have set up a joint executive committee to implement a worldwide product policy for certain specialty chemicals. Its primary purpose is to increase cooperation with respect to such chemicals as fatty acid derivatives, catalysts, organic peroxides, and stabilizers. In addition, the emphasis will be placed on changes in product mix and, subsequently, operations and investments. These efforts should bring about a marked improvement in the return on investment for this product group.

Coatings, pharmaceuticals, and consumer products

During 1982 Akzo Coatings decided to establish international product management to complement its predominantly country-oriented management. This move is especially important for products which, though supplied to local plants of international auto makers, are nevertheless subject to uniform quality standards. In an effort to speed up expansion into the North American market, we acquired the U.S.-based Wyandotte Paint Products Company in 1983.

Akzo Pharma, with subsidiaries in approximately 40 countries, had a very successful year, although numerous and often considerable devaluations eroded guilder sales and earnings. Further penetration into the North American pharmaceutical market, where footholds, in addition to those of Organon Inc., have been established in the sectors of pharmaceutical raw materials, hospital supplies, and veterinary products, will require a great deal of attention in the years ahead.

Akzo Consumenten Produkten is being faced with structural changes, notably in the Netherlands, in the distribution pattern for its food and nonfood specialties. However, by strengthening the branded articles position, developing new marketing concepts, and making organizational adjustments, we should be able to respond adequately.

Miscellaneous products

Chief among our miscellaneous products are engineering plastics (compounds) and membranes for medical applications, which did very well. Both product lines have resulted from research carried out at Enka.

Outlook for 1983

Given the Group's performance in the recessionary year 1982, we believe that, if the world economy begins to turn around, we may well see improved earnings in 1983.

Any significant improvement in the results of Akzona's fiber division, American Enka, is contingent upon an upturn of the American fiber market. A recovery of the general economy in the United States should spur a return to reasonable profitability for Akzona.

In 1983, Enka will fully benefit from the restructuring measures taken in 1981/82. How strongly this will be reflected in earnings depends largely on the development of the business climate.

Akzo Zout Chemie's earnings should increase in 1983, initially resulting from an improved cost structure.

For specialty chemicals, coatings, pharmaceuticals, and consumer products, we think that, in the aggregate, results will remain at the not unsatisfactory 1982 level.

Expenditures for property, plant and equipment are not expected to change significantly from previous years. The number of employees will decrease further as a result of restructuring and streamlining programs.

Financial review

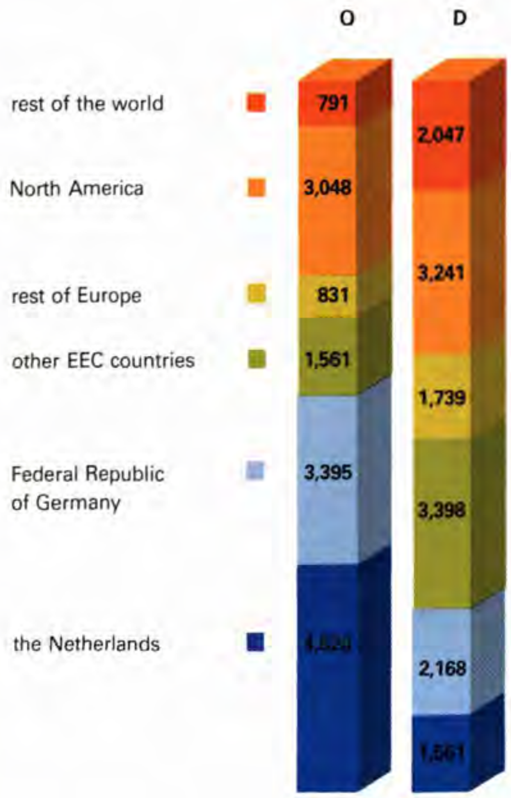
in Hfl million	sales 1982	sales 1981	operating income 1982	operating income 1981
first quarter	3,710	3,533	127	114
second quarter	3,592	3,664	134	141
third quarter	3,379	3,588	96	127
fourth quarter	3,473	3,691	136	182
total	14,154	14,476	493	564

Results of operations

Sales and income

in Hfl million	1982	1981
sales	14,154	14,476
operating costs	13,661	13,912
operating income	493	564
interest	(297)	(329)
taxes on operating income less interest	(28)	(79)
equity in earnings of non-consolidated companies	59	83
Group income before extraordinary items	227	239
minority interest	(16)	(15)
net income before extraordinary items	211	224
extraordinary items	(46)	15
net income	165	239
on a current-value basis		
operating income	259	193
net income before extraordinary items	95	47
net income	49	62

Sales (1982), by origin (**O**) *and by destination* (**D**) *- in Hfl million*



Sales declined by more than 2%, almost half of which was attributable to Akzona. Increases in selling prices were insufficient to offset the 6% reduction in shipments.

The main reason for this decrease in shipments was market weakness of man-made fibers, principally in the United States and in Europe. Lower sales volume of chemical products was mainly caused by continuing market deterioration for a number of commodity chemicals, including VCM. The other product groups were able for the most part either to maintain the prior year's volume sales level (coatings) or to achieve volume gains (pharmaceuticals and consumer products). In the category of miscellaneous products there were increases in shipments of Barmag Barmer Maschinenfabrik, Akzo Plastics, and Membrana products.

Overall, *operating costs* decreased 2%. The changes in the various components are shown below.

in Hfl million	1982	1981	change
salaries, wages, and social charges	4,229	4,182	+ 1%
depreciation	533	527	+ 1%
raw materials	5,400	5,500	− 2%
energy	1,000	1,020	− 2%
supplies, purchased services, etc.	2,499	2,683	− 7%
total	13,661	13,912	− 2%

Salaries, wages, and social charges were up by 1%, due to a 7% rise in wage costs per employee and a 6% reduction in the average number of employees.

Altogether, the prices of *raw materials* were comparatively stable. Petrochemical feedstocks showed, in some cases, a slight downward trend as a result of lower oil prices.

The cost of *energy* did not increase, as a result of lower production and savings in energy consumption. Yet it remained high and continued to plague operations, notably our chemical operations in the Netherlands, despite conservation efforts and moderated electricity rates.

Operating income expressed as a percentage of sales decreased from 3.9% in 1981 to 3.5% in 1982.

Net *interest expense* decreased Hfl 32 million (10%) from 1981, largely due to a decline in interest rates and indebtedness of our companies in, among others, the United States and South America. Interest received on cash and marketable securities could be maintained at roughly the 1981 level.

Taxes amounted to 14% of operating income less interest, compared with 34% in 1981. This principally resulted from the use of loss compensation facilities in the Federal Republic of Germany and the Netherlands.

Equity in earnings of nonconsolidated companies decreased by approximately one third to Hfl 59 million in 1982. The results of the COBAFI tire yarn plant in Brazil were significantly lower due to the downturn in the automotive industry. Earnings from our methanol operations (the Netherlands) were also lower.

Extraordinary items, after deduction of minority interest, resulted in a negative balance of Hfl 46 million, as against a positive balance of Hfl 15 million in 1981 when extraordinary items were favorably influenced by book profits on a number of disposals. The main factors in the negative 1982 balance were the divestiture of the Enka Austria rayon fiber company and the reorganization at Akzo Zout Chemie.

Current-value information

Operating income calculated on the basis of historical cost was down from the prior year, whereas operating income determined on the basis of current value was up. The table below indicates that this difference was caused by the so-called inventory profits, which were substantially lower than in 1981.

in Hfl million		1982		1981
operating income on the basis of historical cost		493		564
inventory profits	69		197	
additional depreciation	165		174	
		234		371
operating income on the basis of current value		259		193

Sales, operating income, and invested capital

product groups in Hfl million	sales 1982	1981	operating income 1982	1981	invested capital** 1982	1981
man-made fibers	4,359	4,678	(19)	33	2,477	2,328
chemical products	3,817	4,011	89	125	1,895	1,851
coatings	1,572	1,513	97	110	598	569
pharmaceuticals	1,563	1,484	233	190	701	714
consumer products	1,055	1,013	47	50	295	289
miscellaneous products	1,976	1,959	51	88	1,007	1,058
total	14,342	14,658	498	596	6,973	6,809
intra-Group deliveries, nonallocated costs, and nonallocated invested capital	(188)	(182)	(5)	(32)	(92)	(65)
total	14,154	14,476	493	564	6,881	6,744

The terms and conditions for intra-Group deliveries are negotiated at arm's length and therefore are, in principle, identical with the ones used in transactions with third parties. International intra-Group deliveries and international deliveries within a single product group are made in accordance with standard procedures that take due account of tax, currency, and pricing regulations in force in the countries concerned.

regions in Hfl million	sales* 1982	1981	operating income 1982	1981	invested capital** 1982	1981
the Netherlands	4,528	4,699	75	133	2,288	2,143
Federal Republic of Germany	3,395	3,385	128	105	1,688	1,660
other EEC countries	1,561	1,633	100	78	645	601
rest of Europe	831	825	64	31	264	332
North America	3,048	3,210	(24)	99	1,695	1,721
rest of the world	791	724	150	118	301	287
total	14,154	14,476	493	564	6,881	6,744

* by origin, i.e. sales of consolidated companies established in the region

** total assets of consolidated companies less cash and marketable securities, and less non-interest-bearing current liabilities

The contribution to operating income made by coatings, pharmaceuticals, and consumer products (most of them oriented toward the general consumer) increased to over 75%, against nearly 60% in 1981.

For further details on the development of sales and operating income of the product groups see page 16 and following.

The financial information by region shows a steep fall of operating income in *the Netherlands* compared with 1981, due to a disappointing performance of Akzo Zout Chemie Nederland B.V. and of Enka B.V.

The improvement in operating income in the *Federal Republic of Germany* is largely to be credited to Enka AG (man-made fibers and membranes).

Spain did much better due to the reorganization of the fiber company La Seda de Barcelona and a market rebound for man-made fibers.

In the *United Kingdom* operating income was still negative, but some improvement was achieved due to the complete shutdown of fiber production in Northern Ireland.

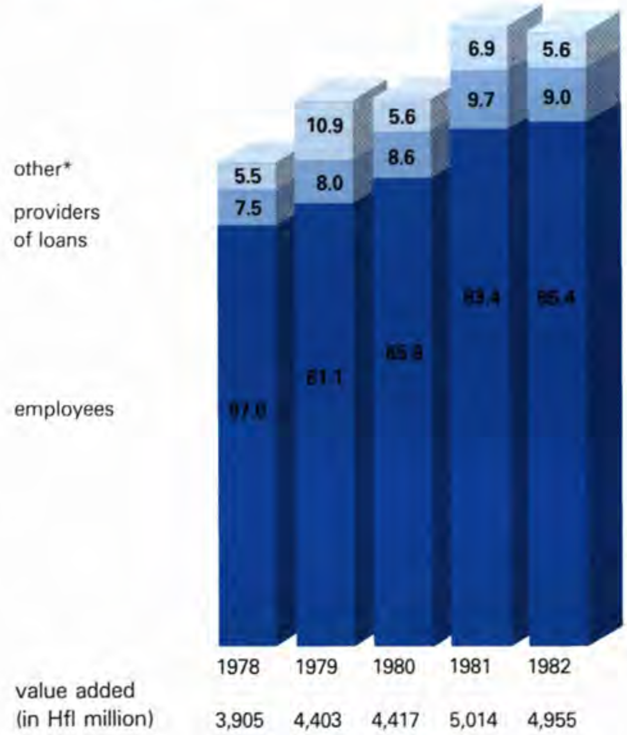
Operating losses in *North America* mainly resulted from the poor performance of Akzona's fiber division American Enka. In the second half of the year Akzona initiated cost-cutting programs.

In the appraisal of the favorable relation between sales and operating income for our companies in the *rest of the world*, due allowance should be made for the fact that operating income achieved in this region is to be reduced by high financing charges as a result of the strong inflation.

Despite the difficult situation in *Brazil*, operating income of our local companies was by and large satisfactory.

The restructuring of the Miluz coatings company in *Argentina* began to pay off in 1982.

Shares in value added (in %)



* governments, stockholders, Group equity

Geographical breakdown of sales and invested capital of nonconsolidated companies

in Hfl million	sales* 1982	sales* 1981**	invested capital 1982	invested capital 1981**
Europe	1,640	1,690	640	840
Latin America	850	970	670	790
rest of the world	410	390	300	230
total	2,900	3,050	1,610	1,860

* by origin ** restated for comparison

Value added

Group value added remained virtually unchanged at Hfl 4,723 million. Expressed as a percentage of sales, it rose from 32.8% in 1981 to 33.4% in 1982.

For the determination of value added available for distribution, equity in earnings of nonconsolidated companies and certain other items of income have to be added to the above figure, raising it by Hfl 232 million. Extraordinary items are not included because of their nonrecurring nature.

The share of employees in this value added was up from 83.4% in 1981 to 85.4 % in 1982.

Financing and capital expenditures

The table below presents a survey of Group financing in the 1980/82 period.

in Hfl million	1982	1981	1980
working capital* at January 1	2,822	2,813	2,766
source			
funds from operations	756	846	631
borrowings	670	425	593
other	14	6	16
	1,440	1,277	1,240
application			
expenditures for:			
- property, plant and equipment	730	693	645
- acquisitions and other noncurrent assets	219	46	51
repayment of borrowings	434	452	498
Akzo N.V. dividend	47	59	–
other	103	18	(1)
	1,533	1,268	1,193
working capital at December 31	2,729	2,822	2,813
of which cash and marketable securities	778	898	883

* current assets less current liabilities

The principal feature of the 1982 financing picture was the relatively high level of expenditure for property, plant and equipment, and particularly for acquisitions, which is associated with the acquisition of the 34% minority interest in Akzona Inc. and of the 50% interest of Nationale Investeringsmaatschappij N.V. in Société des Dérivés Azotés S.A. of Mons (Belgium).

To meet our higher financing requirements we had greater recourse to the capital market and drew on cash and marketable securities.

Capital expenditures

The following tables illustrate that higher expenditures for property, plant and equipment largely relate to chemical products and to the Netherlands, which is due to the Rotterdam membrane electrolysis plant scheduled to go on stream in the spring of 1983.

expenditures for property, plant and equipment (in Hfl million)

product groups	1982	1981	1980
man-made fibers	222	241	241
chemical products	282	239	193
coatings	47	46	50
pharmaceuticals	52	59	64
consumer products	27	22	23
miscellaneous products	100	86	74
total	730	693	645

regions	1982	1981	1980
the Netherlands	338	303	246
Federal Republic of Germany	136	138	130
other EEC countries	37	43	63
rest of Europe	31	52	36
North America	148	139	150
rest of the world	40	18	20
total	730	693	645

In the 1980/82 period 43% of the expenditures was made in the Netherlands, which compares with a Dutch share in invested capital of 33%.

In 1982, authorizations for additions to property, plant and equipment totaled Hfl 637 million, compared with Hfl 590 million in 1981.

In addition, an appropriation was made in respect of our share in Aramide Maatschappij v.o.f. (Hfl 65 million).

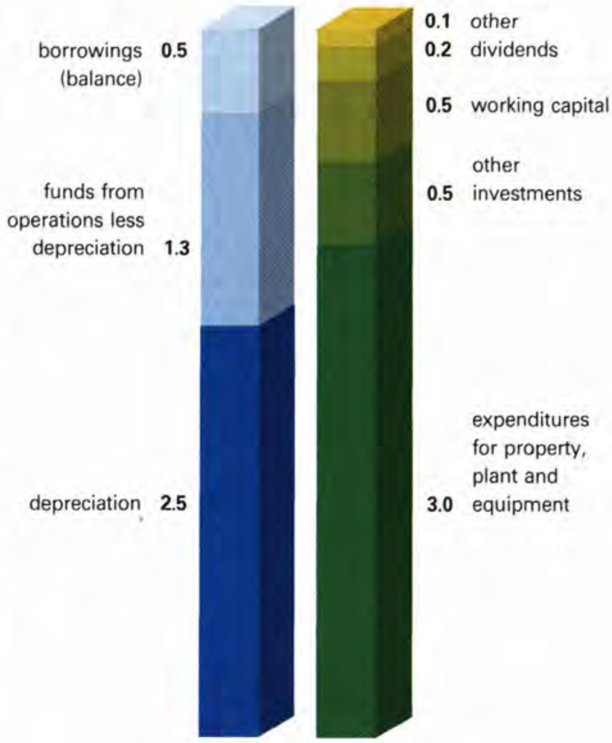
Working capital and liquidity

With a 2% decline in sales to Hfl 14.2 billion, working capital including cash and marketable securities was down Hfl 93 million (3.3%) to Hfl 2,729 million.

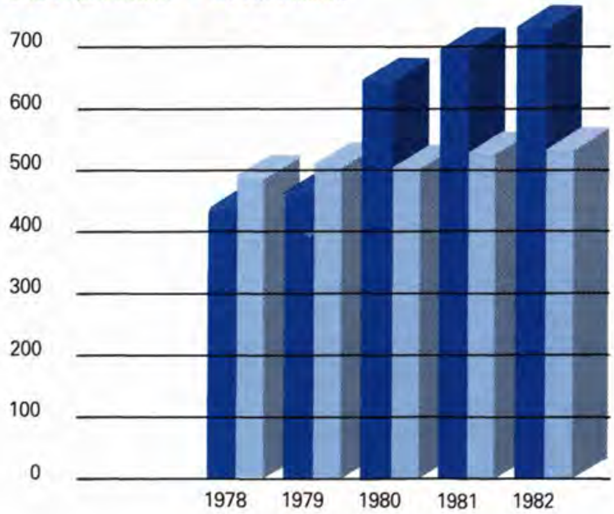
Cash and marketable securities fell from Hfl 898 million at December 31, 1981, to Hfl 778 million at December 31, 1982.

Operational working capital, defined as trade receivables, inventories, and accounts payable (suppliers), decreased Hfl 80 million to Hfl 3,687 million at December 31, 1982. Expressed as a percentage of sales, operational working capital stood at 26.1%, compared with 26.0% the previous year.

Sources and applications of funds, 1978-1982 (in Hfl billion)



Expenditures for property, plant and equipment ■ and depreciation ■ (in Hfl million)



The changes in the individual components were as follows:

	in % of sales	
	Dec. 31, 1982	Dec. 31, 1981
inventories	18.0	17.3
trade receivables	15.2	16.4
	33.2	33.7
accounts payable (suppliers)	7.1	7.7
operational working capital	26.1	26.0

Borrowings

With capital expenditure up, drawdowns in 1982 (Hfl 670 million) were substantially higher than in 1981 (Hfl 425 million). Repayment of borrowings aggregated Hfl 434 million (1981: Hfl 452 million).

Borrowings contracted by Akzo N.V. in 1982 include DM 100 million 9½% debentures 1982/1989, and Hfl 100 million 10¾% debentures due 1988/1992. Additionally, Akzo N.V. drew down the equivalent of U.S. $ 80 million under the U.S. $ 230 million multicurrency facility due 1991/1993, so that this facility is now fully used. Negotiated in 1980, this loan carries a variable interest charge.

Enka AG obtained bank credit lines in the equivalent amount of Hfl 35 million.

Akzo Zout Chemie drew down Hfl 100 million of the Hfl 150 million subordinated loan made available by the Nationale Investeringsbank to finance the Rotterdam membrane electrolysis plant.

The aggregate amount of unused medium- and long-term credit facilities was reduced by Hfl 190 million to Hfl 750 million at December 31, 1982, because of the above drawdowns on the multicurrency loan and the subordinated loan.

The average rate of interest on the loans outstanding at year-end was 8.8%, compared with 9.9% at December 31, 1981.

At December 31, 1982, the share of floating rate debt in the aggregate amount of interest-bearing debt (Hfl 3.8 billion) was approximately 38%, slightly up from the previous year.

Financing requirements in 1983

The 1982 drawdowns held the Group's liquidity at a high level.

Our central financing requirements in 1983, which will largely relate to refinancing of existing debt, will be primarily met through the use of cash and marketable securities. However, given the right conditions on the capital market, we expect to utilize available opportunities.

Our foreign subsidiaries are primarily financed by means of local borrowings.

Akzo Chemie is concentrating its European production of organic peroxides in four locations, among them Gillingham (U.K.). Production capacity there was expanded by ferrying across a complete facility from the Netherlands. This unorthodox move produced substantial savings in both time and capital expenditure.

Employment statistics

As indicated in the following table, the number of employees of consolidated companies was down 4,100 in 1982, equivalent to 5% of the number of employees at December 31, 1981.

Most of this decrease was among Enka and Akzona employees.

number of employees	Dec. 31, 1982	Dec. 31, 1981	change
Enka	30,000	32,700	-2,700
Akzo Zout Chemie	5,000	5,000	
Akzo Chemie	4,200	4,300	-100
Akzo Coatings	8,300	8,300	
Akzo Pharma	8,500	8,600	-100
Akzo Consumenten Produkten	3,200	3,100	+100
Akzona	13,500	14,700	-1,200
other companies	1,000	1,100	-100
total	73,700	77,800	-4,100

During 1982, Enka shut down its operations in Antrim and Breda. Production in the Kassel plant will be phased out over the period through mid-1984: more than three years after the restructuring measures for Enka were first announced. The scaledown of the personnel strength in Enka's central offices, which is to be effected over a period of several years, is proceeding on schedule.

Unfortunately, there were few if any alternative jobs available for the personnel of the plant in Northern Ireland, still 900 strong at December 31, 1981. For the workforce (approximately 700) of the Breda plant, on the other hand, we were largely successful in finding alternative employment with industries willing to set up business on the vacated site. The workers (approximately 700) of the Kassel plant have been offered jobs in other Enka operations in the Federal Republic of Germany.

La Seda de Barcelona has been conducting a slimming operation since 1981. In the year under review the number of employees was reduced further by 250 to 3,300 at December 31.

In the Dutch plants of Akzo Zout Chemie and Akzo Chemie, 1,400 workers were switched from a full four-shift schedule to the modified five-shift schedule agreed in 1982. This change, which took effect on October 1, 1982, means a reduction of approximately 5½% in the number of hours worked. Due to efficiency measures adopted at the same time, the increase in personnel strength was less than proportional.

Akzona, with earnings taking a turn for the worse since the fourth quarter of 1981, primarily due to increasing losses of its fiber division American Enka, was forced to make major personnel cuts aggregating 1,200 jobs. More than half of these cuts related to white-collar workers.

The number of persons employed by nonconsolidated companies decreased from 11,600 at December 31, 1981 to 11,100 at December 31, 1982.

Given the necessity of improving its earnings position, Akzo Zout Chemie will lower its overall staffing level in the Netherlands by about 500 employees over the next two or three years, largely in the service and overhead sectors. It is hoped this goal will be achieved by normal attrition, but the success of this endeavor will largely depend on the flexibility of our personnel.

The Enka Austria rayon fiber company to be divested in March 1983 has a workforce of approximately 1,000.

From the developments outlined above it is clear that Group employment will continue to decrease in 1983. It is hard to quantify further declines but, acquisitions and disposals apart, we expect a smaller contraction of the labor force than in 1982.

Due to the very cautious hiring policies pursued over the last few years, a demand for new employees is beginning in some sectors. We strive to meet this demand by hiring young people.

employees of consolidated companies, by region	Dec. 31, 1982	Dec. 31, 1981	change
the Netherlands	22,600	23,000	-400
Federal Republic of Germany	19,400	20,200	-800
other EEC countries	7,200	8,200	-1,000
rest of Europe	5,500	5,800	-300
North America	13,400	14,900	-1,500
rest of the world	5,600	5,700	-100
total	73,700	77,800	-4,100

Social developments

Unemployment

In many countries where we operate, unemployment rates have again risen sharply during 1982. This trend is anticipated to continue, thus making unemployment a major social problem, both nationally and internationally. Youth unemployment is generally considered the biggest problem, since it is important for young people to find work in order for them to take their place in society. Jobs mean a future and security whereas joblessness involves great social risks.

We, on our part, are prepared to make every reasonable effort to reduce unemployment, especially among young people. While we feel that the best way to confront unemployment is to improve the structural profitability of our operations, we are willing to go further than that and promote greater employment of young persons within the context of the social policies of the countries where we have facilities. The present economic climate and our own situation make it imperative, though, that such efforts do not lead to an increase in cost. Together with governmental authorities, with our employees, and with their representatives we will try to find ways and means – financial, legal, and organizational – to alleviate the problem.

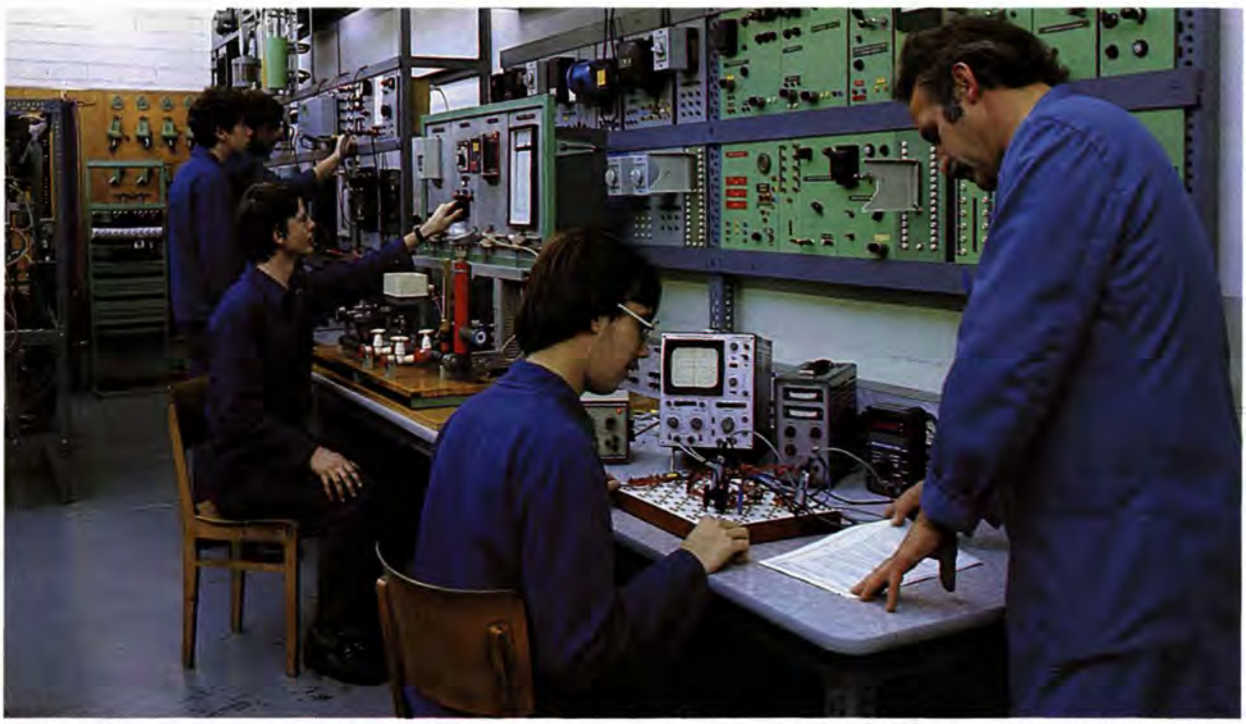
EEC directive to inform and consult employees

In the fall of the year under review we made certain representations to the European Parliament in response to the proposals of the EEC Commission for a directive requiring multinationals to inform and consult employees on all matters affecting their jobs. This move was occasioned by the unjustified allegations made by trade unions over our information and consultation procedures in respect of the rationalization of Enka Europe's fiber operations.

In these representations we confirmed our willingness to duly provide all relevant information on reorganizations and to make every effort in consultation with employees to restrict the social consequences of such reorganizations.

Furthermore, we submitted in evidence a chronology of Enka Europe's restructuring measures in the 1972/1982 period to reinforce a plea to the effect that corporate management be allowed to adopt a flexible and offensive strategy aimed at viable business activities, without being trammeled by further directives.

Meanwhile, the European Parliament and also the European Commission have opted for amendment of the proposals, thus meeting various objections raised by industry.



In 1982, more than 80 boys and girls successfully completed technical or administrative training with Enka in the Federal Republic of Germany.

Annually the Akzo Group lays out more than Hfl 30 million for the instruction and training of personnel.

Safety and the environment

The decision to build a membrane electrolysis plant with an annual production capacity of 250,000 metric tons of chlorine, 280,000 metric tons of caustic soda, and 7,000 metric tons of hydrogen was made at the end of 1979.

Among the grounds for this decision:

- in Akzo Zout Chemie's vital production chain salt/chlor-alkali/vinyl chloride monomer (VCM), the chlor-alkali link was weakest, on account of a relatively low production capacity in small, scattered units;
- a new but already proven process was available for the electrolysis of sodium chloride (salt) into its constituent elements; this process, known as membrane electrolysis and developed by Asahi Chemical Industry Company (Japan), offered much better energy efficiency.

Rotterdam was chosen over other locations in the Netherlands (such as Delfzijl) for a variety of reasons, one of these being the insistence of government and community on a reduction of rail transports of liquid chlorine. Also, the bulk of chlorine output is processed in Rotterdam.

The entire project, slated for completion in the spring of 1983, is supervised by Akzo Engineering, who also prepared the blueprints. The new facility utilizes neither mercury nor asbestos and reflects our awareness that chlorine is an aggressive chemical requiring the provision of special features to protect people and the environment. Our knowledge and experience made a significant contribution to their design.

With the integration of safety and environmental features in capital investment projects it is no longer possible to itemize their cost. However, it may be assumed that several million guilders of the project cost of about Hfl 320 million are attributable to these features. They include:

- provision of a chlorine-neutralizing unit capable of handling the entire chlorine flow in the event of breakdowns;
- minimization of the chlorine volume contained in process equipment, and of the number of vessels and pipes holding chlorine — a constraint which also influenced the chemical engineering design;
- incorporation of numerous automatic controls which set off alarms and/or take direct action when the safe margins established for the process are exceeded;
- provision of means for the remotely controlled isolation of sections or vessels containing chlorine, largely from the central control room;
- provision of special draining reservoirs under the principal equipment items which hold chlorine;
- provision of a network of automatic chlorine detectors encompassing the installation, with additional detectors in those places where the largest quantities of liquid chlorine are concentrated.

Acting upon a belief that it is better to prevent chlorine

When the membrane electrolysis plant at Rotterdam goes on stream, transportation of liquid chlorine across the Netherlands will be substantially reduced. The nightly rail transports, which are in compliance with stringent safety regulations, have so far been rolling smoothly.

emissions than to fight the consequences, we analyzed the design to bring to light possible problems. The findings of our analyses were made available to the authorities, in accordance with environmental legislation.

To minimize the risk of human failure in operation and maintenance, a good deal of time and effort was expended on the training of personnel.

Prior to startup the Factory Inspection authorities will be given a report dealing with on-the-job safety.

The fact that so many measures were taken does not constitute a guarantee that nothing can go wrong. Such a guarantee is practically and theoretically impossible. It does mean, however, that the risks have been reduced to an acceptable level.

Now that the project has been completed and the plant is soon to go on stream, we feel two comments ought to be made which we would like the authorities concerned with environmental and safety affairs to contemplate.

In the first place the complexity and size of the project made the job of managing construction to meet the deadline for completion a major challenge for Akzo Engineering. We had some right to expect that the authorities would help us achieve our financial, organizational, and technical goals by letting us know early on and in plain terms what the conditions were for our permits. As this was not always the case, we were forced to use part of the construction time to devise engineering solutions for conditions subsequently imposed.

As we see it, the authorities would be well-advised to set specific targets and to refrain from prescribing the means to realize them. For the derivation of these targets, concrete norms would have to be available. We would be willing to cooperate in their development.

Secondly we feel that the authorities should adopt a realistic attitude toward industry, whose earning capacity has been greatly debilitated over the last several years. This also applies to the chlor-alkali industry in the Netherlands, which is still confronted with a cost structure placing it at a disadvantage vis-à-vis foreign producers. If the safety and environmental features found in our new Rotterdam plant were to be made the yardstick for our older electrolysis facilities, our Dutch operations would become largely uneconomic.

Research and technology

During 1982, R&D expenditure increased Hfl 35 million to Hfl 620 million*. The number of employees was down 180 to 5,050 at December 31, 1982.

Innovative and supporting Group research activities are roughly 90% delegated to the various divisions. The remaining 10% come under the heading of Corporate Research whose facilities at Arnhem and Obernburg (Federal Republic of Germany) concentrate on fundamental/exploratory research and on research methodology. Corporate Research is not an isolated function: most of the work is done at the request of, and in cooperation with, the divisional R&D functions.

Much of our research is concerned with polymers, based on such disciplines as polymer chemistry and on advanced techniques and instruments permitting rapid determination of the key physical properties of newly developed materials. This is necessary to establish whether the polymer in question is appropriate to the application envisaged for it. Modifications to the structure of the material may serve to tailor its properties to a specific end use.

In the fields of man-made fibers, plastics, resins, paints, and polymer additives, Akzo research has achieved numerous successes in the last few years, some of which are detailed below.

Our *Arnitel® thermoplastic elastomers* are copolymers consisting of a combination of soft rubber and hard polyester segments. By varying segment length, widely different products — e.g. low viscous glues, soft rubbers, and hard plastics — can be made. The line of *Arnitel®* products is currently being expanded to accommodate new applications which have come on the horizon. The principle of combination of hard and soft segments was also used in the development of *resins* for high-solids *automotive finishes.*

Further interesting product developments based on polymer science include:
- the ultra strong *Enka aramid* industrial fiber;
- an impact-resistant *engineering plastic*;
- *Cyclopal®* paper size.

The *specialty diisocyanates CHDI* and *PPDI*, which are among the products in the development stage, make polyurethane plastics, rubbers, and elastic yarns. Physical tests show that both isocyanates are ideal materials for plastics and rubbers with superior mechanical properties and life.

In addition to developing new products, Corporate R&D also continually seeks to improve existing products and processes, with a vital role being played by process control and process management techniques.

* R&D expenditure as defined by the International Accounting Standards Committee is about 80% of this amount. The balance is composed of expenditures for the direct support of existing processes and products for the benefit of sales and production.

Man-made fibers

in Hfl million		1982	1981		*1980*
sales:	textile uses	3,105	3,427	−9%	*2,663*
	industrial uses	1,254	1,251		*1,119*
	total	4,359	4,678	−7%	*3,782*
operating income		(19)	33		*(170)*
	in % of sales	(0.4)	0.7		*(4.5)*

General

The 7% decrease in sales as compared with 1981 was compounded of a decline in shipments (14%), the adverse effect of exchange rates (2%), and an increase in average selling prices (9%).

Operating income was negative. The marked improvement in operating income for the Enka group was more than offset by operating losses for American Enka.

Enka Europe was able to largely maintain its selling prices. At year-end, prices came under downward pressure because of persistent market softness.

American Enka was confronted with extremely adverse market conditions. Shipments were down nearly 20% from 1981, which prevented a much needed increase in selling prices.

Enka group

Europe

Man-made fibers for textile uses, including carpets

Output of the Western European textile and apparel industries further decreased. In 1982, textile and carpet consumption continued to mark time, with consumers spending an even smaller portion of their (lower) disposable income on these products. Imports and the surplus of imports over exports of textile products remained at about the 1981 level. Exports of man-made fibers, on the other hand, dropped sharply, due in part to a lack of hard currency in a growing number of countries.

Within the scope of the renewal of the Multi-Fiber Agreement the EEC has laid down more stringent rules in bilateral agreements to curb imports from the Nics (newly industrializing countries), without unduly affecting the developing countries. A rise in imports, combined with a stagnant textile consumption, could deal a fatal blow to the Western European textile and apparel industries.

Enka Europe's volume sales were 12% lower than in 1981. While this substantial reduction includes the effect of the plant closures at Antrim (British Enkalon) and Breda in the course of 1982, it clearly demonstrates current market weakness. Some plants had to resort to working short time.

The development of volume sales is causing us concern, but it is gratifying that selling prices, which were raised in late 1981/early 1982, remained fairly stable during 1982.

Completed in early 1982, the modernization of American Enka's carpet yarn production was a factor in maintaining the profitability of this group of products.

Enka's nylon 6.6 yarn was used in making double ropes, measuring 110 m long and twice 24 cm across, with an assembled breaking strain of 2,400 metric tons. This largest and strongest nylon rope type in the world is to serve in temporary mooring systems for oil rigs.

Further capacity cuts of more than 15% to be implemented until 1985 by the Western European producers will result in a higher degree of specialization. Enka Europe has the advantage that its production has meanwhile been largely concentrated in a limited number of large, modern plants.

The main developments for Enka's individual products are outlined below.

The decline in volume sales of *polyester textile yarns* mainly concerned textured yarns for the circular knitting sector. For flat yarns we were able to bolster our strong market position in the weaving sector. The modernization of the production process of yarns for this sector enables Enka to fully meet the ever stricter quality requirements of the textile and apparel industries.

The significance of the production of *polyamide textile yarns* in Western Europe continues to dwindle. Enka currently confines itself to supplying specific segments of the market. Prices for these segments could be maintained.

A decline was registered in the demand for *rayon textile yarns* for lining fabrics. Nevertheless, capacity utilization could be kept at a reasonable level due to satisfactory exports and favorable sales to producers of ladies' outerwear fabrics.

Reduced exports caused a drop in *polyester staple* sales. Losses suffered on these fibers were lower than in 1981 but remained substantial.

The market for *polyamide carpet fibers* was particularly dismal in Western Europe, due in part to inventories being used up by the carpet industry. Enka is increasingly concentrating its efforts on the less price-sensitive segment of the market, namely carpeting for offices, hotels, etc. (contract carpeting).

The first stage of a consolidation of carpet yarn production at Emmen has been completed early in 1983.

The production of polyamide carpet staple (Kassel) was terminated at the end of 1982.

Man-made fibers for industrial uses

Enka's line of industrial fibers embraces rayon yarn, polyamide 6 and 6.6 yarns, polyester yarn, steel cord, aramid yarn, and carbon fiber.

In the year under review Enka was faced with a sluggish market in various sectors, notably the tire industry. Export possibilities diminished rapidly, especially in the second half of the year. A positive factor was that the raw material and energy price hikes of the prior year did not continue into 1982.

Mainly due to decreasing volume sales, the results for our *rayon yarns* deteriorated, resulting in short-time work in the fourth quarter. Nevertheless, we believe there are good prospects, also in the longer run, for this type of tire yarn.

As far as *synthetic yarns* are concerned, favorable sales and income figures were recorded for *polyester yarns*, partly as a result of a decrease in the number of producers.

Polyamide 6 yarns, used in tires, ropes and nets, and similar products, again posted unsatisfactory results due to keen competition in Europe and in export markets. Results for *polyamide 6.6 yarns* were reasonable, with volume sales remaining stable.

Implementation of the modernization program for synthetic yarns, aiming at cost reduction and flexible process operation, will continue in the coming years.

The results of *steel cord* for the tire industry remained unsatisfactory; market weakness made it necessary to go temporarily on short time.

Despite the economic recession, volume sales gains were achieved for our synthetic material used for erosion control and drainage *(Enkamat®)*, soil stabilization *(Stabilenka®)*, and the sealing of reservoirs *(Hypofors®)*.

The *aramid fiber* project is expected to commence commercial production in 1985. Until then test marketing and application research will rely on material produced in the pilot plant.

Volume sales of *carbon fibers* coming from a Japanese supplier continue healthy. In early 1983 an agreement was concluded with Toho Rayon/Toho Beslon (Japan), one of the world's leading carbon fiber producers, under which Enka has been granted exclusive production and selling rights for Europe. It is intended that a joint effort will be made to further develop existing applications and add new ones.

Other regions

The results of our Brazilian polyester textile yarn company Polyenka exceeded our expectations, despite the poor state of the economy in Brazil.

Enka has a stake in a number of nonconsolidated fiber companies in Latin America and India, which had total sales of Hfl 910 million against Hfl 1,020 million in 1981.

Enka de Colombia and Century Enka (India) again recorded satisfactory results. Fibras Químicas (Mexico) also performed tolerably well, but earnings were adversely affected by the devaluations of the peso. The greatest decline in income was registered for the COBAFI nylon tire yarn plant (Brazil); it was due to the very weak automotive market.

Customers and research institutes help us test aramid fibers in a variety of applications: some old, many more new. The fibers for these tests are produced in our Arnhem pilot facility.

The night shift of our Brazilian polyester textile filament operation, Polyenka, goes home. Polyenka had a satisfactory 1982.

American Enka

American Enka's sales volume was substantially lower than in 1981. Selling prices, which trailed the 1981 level, came under downward pressure in the last months of the year, due in part to imports.

Volume sales of *polyester textile yarns* bore up well under the discontinuation of exports to the People's Republic of China. Nevertheless, increasing downward pressure on prices and lower capacity utilization caused substantial losses. Efforts are being made to enlarge sales of specialty products.

Polyamide carpet fibers recorded a not insignificant decline in shipments. If this most important line of products in terms of volume remained profitable, this is largely attributable to the modernization of carpet yarn production completed early in 1982.

Polyamide textile yarns increasingly felt the pinch of imports on the market for intimate apparel. The warp-knit sector was particularly weak.

Volume sales of *rayon staple* both for textile uses and for nonwovens fell sharply compared with 1981.

Research and development

Research efforts in the field of *synthetic textile fibers* are increasingly being directed toward supporting activities. The other R&D activities are limited on a carefully selective basis to process improvement (cost reduction) and to product modification to suit market demands. For *carpet fibers* the research focus is on product innovation, paced by changes in carpet fashion.

For *industrial fibers* the main research focus is on *aramid yarns.* In addition to application research in new fields, efforts are chiefly concentrated on the promising area of composites, where the use of aramid as a reinforcing material in, for instance, metals and plastics offers a unique combination of properties.

Outlook for 1983

Barring a possible upturn of the economy in 1983, we do not yet expect a significant recovery of the market for Enka Europe's man-made fibers in Europe or elsewhere. Any improvement in performance should primarily come from restructuring measures.

We believe that a gradual improvement in the results of American Enka should be possible, in part reflecting the cost-cutting measures taken to date. The extent of the improvement will be dependent on the recovery of the U.S. fiber market.

We expect that the performance of the nonconsolidated fiber companies in Latin America and India will be similar to 1982.

Chemical products

in Hfl million	1982	1981		*1980*
sales:				
salt and heavy chemicals	2,269	2,398	−5%	*2,174*
specialty chemicals	1,548	1,613	−4%	*1,375*
total	3,817	4,011	−5%	*3,549*
operating income	89	125	−29%	*183*
in % of sales	2.3	3.1		*5.2*

General

Under the adverse influence of the economic recession and market softness for a number of commodity chemicals, earnings were down substantially, at 5% lower sales.

The steep decline was primarily caused by higher losses on vinyl chloride monomer (VCM), partially offset by increased revenues from our salt operations in Western Europe, the United States, and Brazil.

Our specialty chemicals were more successful in holding their ground, but sales and income were clearly impacted by the downturn in the plastics industry.

Salt and heavy chemicals

Salt

Shipments of *salt* were higher than in 1981, with larger volume sales of highway salt in the United States due to the severe 1981/82 winter season. A growing market area is the use of salt for drilling mud used in oil and gas exploration.

Rising energy costs induced us to conduct a comparative investigation into the cost effectiveness and quality aspects of evaporated salt, rock salt, and solar salt operations. The conclusion was that – if supported by regular energy conservation investments – our salt produced by the evaporation process will be able to maintain a good competitive position in the existing markets in Northwestern Europe.

Chlor-alkali products

General market conditions were different for our joint electrolysis products *chlorine* and *caustic soda*. For chlorine the continuing slump in the VCM/PVC industry was a decisive factor. For caustic soda the decrease in electrolysis production because of reduced demand for chlorine several years ago created a tight supply situation, which boosted selling prices. However, during 1982 the demand for caustic soda for the aluminum and pulp/paper industries among others leveled off and the market for caustic soda stabilized, albeit at a lower volume sales level. In the year under review speculative pricing for this product came to an end.

Compared with the other European electrolysis companies which faced low capacity utilization, Akzo Zout Chemie was in a more comfortable position due to expiring commitments to purchase chlorine.

The commissioning of the membrane electrolysis plant in Rotterdam will involve a shutdown of the mercury electrolysis plant in Delfzijl (mid-1983) and of the chlor-alkali plant in Rotterdam (late 1983). These older electrolysis plants with a joint annual capacity of 140,000 metric tons cannot compete with the new plant on cost.

The structural overcapacity for *vinyl chloride monomer* and *polyvinyl chloride* caused very low prices in the year under review. In order to bolster their position during the inevitable restructuring period, Shell Nederland Chemie and Akzo Zout Chemie have concentrated their VCM/PVC operations in ROVIN v.o.f. This joint venture has an annual production capacity of 500,000 metric tons of VCM and 200,000 metric tons of PVC. Efforts are being made to achieve better balanced production capacities.

For *soda* no further significant growth in consumption is expected. The price level in Europe was stable. The

Nerve center of our new membrane electrolysis plant at Rotterdam. The staff manning this control room monitor the production process and are ready to take remedial action in a variety of situations, including such as endanger environment and safety.

modernization of the soda plant entered its second stage. This project should eventually result in higher margins.

Other commodity chemicals (Akzo Zout Chemie)

The sales and earnings picture for a substantial part of these products was not very bright. Losses were again suffered on *acetic acid*. The modernization of the production process, completed early in 1983, once more made our process competitive with other technologies, principally because of substantially lower consumption of raw materials and energy. Volume sales of *monochloroacetic acid* were lower due to a steep decline in the sales of carboxymethyl cellulose (CMC) used as a drilling mud additive in oil exploration; monochloroacetic acid is a raw material for CMC.

Exports of *crop protection products* declined.

Some of our operations, including *methanol and derivatives* (the Netherlands), *ethylene amines* (the Netherlands), and *monochloroacetic acid* (Japan), are managed by joint ventures in which we do not have a majority interest. Total sales of the nonconsolidated companies in 1982 aggregated approximately Hfl 880 million (1981: approximately Hfl 740 million).

One of the factors exerting a downward pressure on *methanol* earnings was the increase in imports. In spite of this adverse influence, a slight improvement in price level was achieved in the latter half of the year. In the coming years business is expected to be affected by stepped-up imports, notably from OPEC countries. Earnings from *methanol derivatives*, including formaldehyde, were up slightly.

Delamine *(ethylene amines)* turned in a markedly improved performance, mainly due to higher selling prices and substantial savings on energy. The Japanese company Denak *(monochloroacetic acid)* is still facing a market glut but foresees a tendency toward performance improvement as a result of the shutdown of a third-party-owned production facility.

Other commodity chemicals (Akzo Chemie)

Margins for *sulfuric acid* came under stronger downward pressure because of an ailing fertilizer industry and fiercer competition of sulfuric acid obtained by acid producers as a by-product in their industrial processes.

Despite lower shipments, earnings from *carbon disulfide and carbon disulfide derivatives* remained virtually at the prior year's level. The change to a different raw material for these products is expected to result in higher earnings.

Energy savings improved the profitability of the production of *silicates* at Winschoten (the Netherlands) and Düren (Federal Republic of Germany).

Sulfo products (including saccharine, disinfectants) managed to strengthen their market position and recorded satisfactory earnings.

Research and development

Research continues to be focused on process improvement aiming at energy conservation and higher raw material efficiency for such product areas as *salt, chlor-alkali products, vinyl chloride monomer,* and *acetic acid.*

The year under review saw the successful completion of a project to improve the production process of *soda,* which should bring significant energy savings.

Specialty chemicals

Products for plastic and elastomer manufacturers and processors

This market area was hit hardest by the recession. The output levels for plastics and rubber products were substantially lower than a few years ago.

To strengthen our international market position for *rubber chemicals* we resolved to construct a first plant for the production of so-called ultra accelerators, which are used in the curing process. The new production facility, which is based on a more economical process developed by us, will be erected near our carbon disulfide plant in Cologne, which is to supply the raw material. Further accelerators for the rubber industry are slated to be produced at this location some time in the future.

Our proprietary *ester tin stabilizers* for the PVC industry are beginning to make contributions toward earnings of our companies in the United States and Brazil. The persistently low production level of PVC in Europe permitted only a slight improvement in the performance of this line of products.

With the physical removal of a production plant from Dordrecht (the Netherlands) to Gillingham (United Kingdom) the plan to concentrate production of *organic peroxides* in four locations in the EEC area has almost been realized.

Armak, a major supplier of liquid peroxydicarbonates to the American PVC industry, is to expand production capacity.

Sales of *Nouryset® 200* monomer continued so satisfactory that the decision was made to set up a production facility in the United Kingdom. Known as organic glass, the polymer of this material is used in high-quality lenses for optical instruments and glasses.

Organic chemicals

Sales and income for *fatty amines* (used for laundry softeners and other products) are now clearly on an upward trend, thanks to efforts to capture an adequate share of the market after the major investments in the 1976/78 period. In Europe both the product mix and the geographical sales base were expanded.

We anticipate a further improvement in 1983, helped along by substantially intensified cooperation with Armak and Lion Akzo (Japan).

Poliquíma's position in the promising Brazilian market was sufficiently strong to warrant expansion of production capacity.

Our *paper chemicals,* which continued to improve in 1982, strengthened their international earnings base through an acquisition in Italy, through new production facilities in the United Kingdom and Brazil, and through further licensing.

Raw materials for detergents easily adjusted to the vagaries of the market and showed further improvement over the satisfactory results of 1981. Good results were also obtained for *sequestrants, gluconates, chlorofluorocarbons,* and *industrial cleaners.*

Catalysts

Large investments in the production facility for *cracking catalysts* in Amsterdam have resulted in a substantially improved performance beginning in mid-1982. However, owing to third-party capacity expansion, downward pressure on prices will continue heavy, which will make it hard to achieve an adequate return. As the other activities, including sulfuric acid production, at the Amsterdam-Noord location do not in the aggregate make a sufficient contribution toward earnings, further cutbacks will have to be made, affecting about 150 jobs in the 1983/84 period.

Diminished demand by the oil industry for *desulfurization catalysts* caused slightly lower results. The favorable geographical distribution of the production facilities in Western Europe, the United States, and Japan, together with product innovation efforts, should help us strengthen our position.

Outlook for 1983

For *commodity chemicals* (Akzo Zout Chemie) we foresee a modest earnings improvement. This is a reflection not so much of a market improvement as of an improved cost structure due to a further reduction of electricity rates in the Netherlands. Persistent overcapacities and pressure on prices will continue to plague Akzo Zout Chemie in 1983. The streamlining of chlor-alkali production to be completed in 1983 is not expected to have a full impact until subsequent years.

Specialty chemicals (Akzo Chemie/Armak) should reach a somewhat higher earnings level. For Armak this is contingent upon an upturn of the general economy in the United States. For Akzo Chemie an improvement in results should primarily come from cost-cutting measures.

In 1982, Akzo Chemie and Armak established joint product management for a number of products. These include fatty amines, manufactured at centers in Belgium, the United Kingdom, Japan, and the United States. The step has made possible an integrated, worldwide product policy.

Coatings

in Hfl million	1982	1981		*1980*
sales	1,572	1,513	+4%	*1,432*
operating income	97	110	−12%	*110*
in % of sales	6.2	7.3		*7.7*

General

Sales were up slightly, but operating income was down from the 1981 level. Volume sales were about equal. The shortfall in operating income in part resulted from insufficient possibilities to raise prices.

The impact of the persistent recession was felt most sharply in Europe where the construction industry was among the ones that continued weak. Particularly in the second half of the year under review, operating income in France fell as a result of a price freeze and a devaluation of the franc.

Outside of Europe the development of sales and operating income was generally satisfactory. In Brazil considerable volume growth was realized, and in Argentina (Miluz) the reorganization of operations implemented in 1981 much improved profitability.

Adjustments in Akzo Coatings' management structure in January 1983 related to establishing an international approach to the automotive industry, to the coil coatings market, and to export activities, which are to be directed centrally. In addition, duties within the divisional board were reshuffled so as to emphasize the board members' international responsibilities.

The acquisition of Wyandotte Paint Products Company, whose results will be included for the first time in the 1983 financial statements, provides us with a major bridgehead in the U.S. market. There are plans for the integration of operations of our young subsidiary American Sikkens (car refinishes) with those of Wyandotte (automotive finishes and general industry paints).

In May 1982, the division's management and staff departments moved from Amstelveen to Hoofddorp.

Decorative paints and do-it-yourself (DIY) paints

Decorative paints were impacted by industry overcapacity and price cutting moves by individual producers. In Europe generally, there was thus keener competition in our home and export markets. In the United Kingdom, where we began our marketing efforts a number of years ago, our products are finding growing acceptance.

In the field of translucent wood finishes with a long outdoor life we completed development of a major innovation. Products incorporating these findings will be launched in 1983.

In the Dutch DIY market *Uni-decor* satin-gloss paint was introduced. This product combines ease of application with good aesthetics. In France, a similar product had already been added to our product range in 1981.

Cetol Filter®7 *translucent wood finish spearheads a new generation of wood conservation products developed by Akzo Coatings. Its much higher UV resistance almost doubles the new product's service life compared with other translucent finishes.*

Automotive finishes; car refinishes

New car sales in 1982 showed no advance. We were able to maintain shipments of *automotive finishes* at the level of the prior year. Intensified international efforts enabled us to strengthen our position in basecoat/clearcoat paint, a two-component metallic system, in Europe and South America.

With the completion of a major capacity extension of our Spanish subsidiary Ivanow we are prepared for the expected growth of automobile production in the Iberian peninsula. Even without this, however, our market position in Spain has improved significantly.

Car refinishes continued their positive development, the increasing pressure on prices notwithstanding. Major volume sales growth was achieved in Italy, the United Kingdom, and Brazil.

Two new topcoats were put on the market:

- *Autofine®*, a novel air-drying one-component acrylic paint whose superior properties compared with the traditional nitrocellulose and acrylic paints will allow it to secure its own niche;
- *Autobase®*, a two-component system developed for two-layer metallic finishes and consisting of a metallic basecoat covered with a clear topcoat. *Autobase®* is our best solution for difficult refinishing jobs.

Other coatings

Although the aircraft industry has been experiencing decreasing sales, we were able to realize a modest increase in our volume sales of *aircraft coatings*.

The market for *general industry paints* was weak and shipments declined. We introduced a new electrocoat finish which performed encouragingly, notably in France.

Talens *specialty artists colors* achieved good results, with sales which are well-diversified internationally.

Research and development

Our sustained development effort with regard to polymers and resins as basic constituents of our paints have paid off in an important breakthrough in *translucent wood finishes*.

It is deeply gratifying that, in *Autobase®* refinish, we found the key to resolving the complex problems associated with the application of metallic car refinishes. Our advanced analysis capability with regard to color and appearance played a vital role in this development.

Research concerned with *specialty adhesives* produced a remarkable number of new products which have since become commercial. In radiation-cure *printing ink resins* we created the conditions for a strengthening of our market position.

Work is well along on the development of labor-saving automotive and other systems that are environmentally safe. Instances of such systems are improved *high-solids clearcoats* and *low-temperature-curing waterborne primers*.

Sikkens (Sassenheim) broke ground for a new laboratory.

Outlook for 1983

In spite of the fact that a general economic recovery may be further delayed we expect to be able to achieve similar sales and earnings as in 1982.

Positive factors capable of counteracting pressure on margins in certain end-use areas are sound geographic diversification, the high quality of our products, and continuing improvements in the efficiency of our organization.

The growing importance of Spain as a center of operations for the international automotive industry has led to further expansion and modernization of our coatings company Ivanow in Barcelona.

Pharmaceuticals

in Hfl million	1982	1981		*1980*
sales	1,563	1,484	+5%	*1,320*
operating income	233	190	+23%	*145*
in % of sales	14.9	12.8		*11.0*

General

Pharmaceuticals continued their favorable development in 1982.

However, whereas in 1981 Akzo Pharma guilder sales benefited by exchange rate fluctuations of a number of foreign currencies, the reverse effect was experienced in the year under review. Numerous and on occasion quite sizable devaluations depressed sales by 8%. Against this, volume growth and price adjustments (in the main inflation-induced) boosted sales by 13%, so that on balance sales increased 5% on 1981.

The increase in operating income surpassed our expectations. The gratifying rise relative to 1981 is to be attributed to sales growth and an improved product mix as well as to effective cost management.

Organon Inc. (Akzona), which will henceforth come under the supervision of Akzo Pharma, recorded a satisfactory sales and earnings performance.

Ethical drugs

Sales in this product sector (Organon) were satisfactory, although as the year wore on revenues came under increasing pressure. This pressure was the result of devaluations — as in Scandinavia, Belgium, France, Greece, Italy, Portugal, Brazil, Mexico, and Argentina — which could not be sufficiently offset by price adjustments. Healthy sales growth was in evidence for Organon in the Netherlands, the United Kingdom, the Federal Republic of Germany, Venezuela, the Middle East, Indonesia, and Australia.

Organon's new *Marvelon*® contraceptive pill continued to do well; in the Federal Republic of Germany this product led the oral contraceptives market. The product has been introduced in the United Kingdom and has been granted health registration in France.

Cordium®, the new angina pectoris drug, which was launched in France in the fall of 1981, advanced as expected. Preparations are being undertaken for its registration and introduction in several other countries.

Tolvon® continued to make good progress, enabling us to further strengthen our position in the antidepressants market, notably in the United Kingdom, Italy, and France.

Government drug registration requirements continue to become more stringent. This adds more time to the gestation period of a new drug and further shortens the period of effective patent protection, which has repercussions for the priority rating of our research.

We are worried by the Dutch government's 1982 decisions restricting reimbursements under national health insurance. In the year under review these decisions did not yet have much influence on drug sales in the Netherlands. However, if more products get listed and important Organon products are declared nonreimbursable, this cannot but hurt sales. Additionally, its acutely erosive effect on prices could easily precipitate price adjustments in a great many countries where prices in the Netherlands serve as the point of reference.

To strengthen the base of our Nigerian and South Korean activities we entered into joint ventures with local partners.

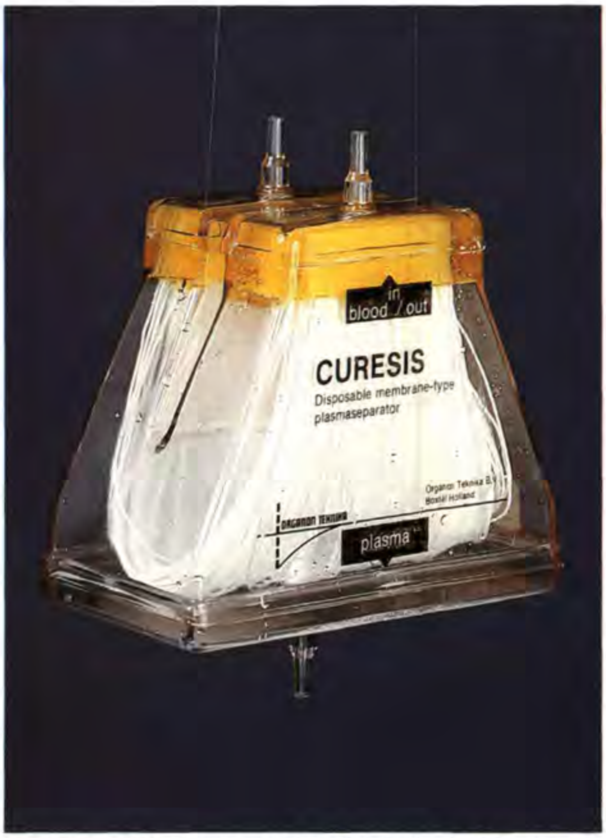
Hospital products

In the year under review, operating income of Organon Teknika was well ahead of 1981. Several important targets in organization, research, and production were achieved.

Offices in Mexico and Brazil were added to the sales organization.

A great many new products were introduced, including:

- *Norcuron*®, a short-effect muscle relaxant which should substantially strengthen Organon Teknika's leading position worldwide in neuromuscular blocking agents;
- *Curesis*®, a plasma separator which places Organon Teknika in the vanguard of work on extracorporeal blood treatment;
- additions to the line of *diagnostic products* based on the EIA system developed by Organon Teknika and patented worldwide. These additions are largely in the field of the



Extracorporeal blood treatment is an interesting field for our Curesis® *plasma separator.* Plasmaphan® *hollow fibers serving as a membrane are the means of realizing the blood separation process.*

diagnosis of hepatitis. Furthermore, the company launched hard- and software for automated processing of the diagnostic data.

One effect of the numerous government-imposed economies was an intensification of competition. It is therefore good to see that the artificial kidney manufacturing plant at Boxtel was able to accomplish substantial efficiency improvements through mechanization.

Nonprescription products

Chefaro sales and earnings both did well.

Especially in certain European countries Chefaro was faced with heavy competition in the pregnancy tests market. However, by virtue of major product innovations generated by research, Chefaro expects to consolidate its international position in this market. The addition of Brazil expanded the market for the *Predictor®* pregnancy test.

In the Netherlands sales developed positively, in spite of constant pressure on the vitamins market in which Chefaro is the leader with *Davitamon®* vitamin pills.

For Chefaro's subsidiaries in the Federal Republic of Germany, the United Kingdom, and Belgium, sales showed little growth. The volume of trade handled by our agents and distributors in countries where we do not have our own staff showed good progress.

Raw materials for the pharmaceutical industry

Although the pressure on margins showed no sign of letting up, Diosynth again turned in a good performance which was in large measure due to increased sales and better capacity utilization.

In the *alkaloids* segment the raw materials supply for *opiates* remained a matter for concern.

The *biochemicals* segment logged good results for its principal products *insulin, heparin,* and *gonadotrophic hormones*. For the manufacture of human insulin the company developed a new process which it took steps to patent.

For *chemical products* the capacity utilization rate could be substantially raised, for one thing because of higher intra-Group deliveries. The pressure on income due to the failure of market prices, especially of *corticosteroids*, to show the kind of improvement that is needed was thus largely canceled.

Veterinary products

The 1982 sales figure of Intervet International is the net result of two important factors: a significant rise in shipments (13%) and a negative development of the exchange rate of foreign currencies against the guilder (12%). Despite startup losses in the United States and the exchange rate effects, operating income was up slightly. This improvement is to be credited to a great many new products developed by in-house research.

In the year under review the company thus introduced:

- *Fertagyl®*, a product which stimulates secretion of gonadotrophins and which is therefore used to treat fertility problems;
- *Nobi-vac® AR* vaccine against atrophic rhinitis in piglets;
- *Nobi-vac® IB* vaccine for layers, developed and patented in collaboration with the Dutch Poultry Institute, of Doorn, the Netherlands.

In the second half of 1982, Brazil was added to the countries where the Predictor® *pregnancy test for home use manufactured by Chefaro is marketed.*

Automatic spray vaccination of day-old chicks with Nobi-vac® IB *vaccine to procure immunity from infectious bronchitis.*

A world first was the launching of a recombinant-DNA vaccine against E.coli diarrhea in piglets *(Nobi-vac® LT K88)* and calves *(Nobi-vac® K99)*.

Outlook for 1983

In sales terms we expect to at least maintain our position in the various market segments. Whether or not we shall be able to match our 1982 performance will largely depend on the feasibility of price adjustments to inflationary cost increases and on the movement of exchange rates in countries of interest to us. Predictions in this regard are hard to make.

Mayolande is France's principal producer of sauces and nuts. The share of exports in total sales keeps growing.

Consumer products

in Hfl million	1982	1981		*1980*
sales	1,055	1,013	+4%	*869*
operating income	47	50	−6%	*40*
in % of sales	4.5	4.9		*4.6*

General

With consumer spending power continuing to decline, and with the increasing leverage of the wholesale and retail trade, producers of branded consumer articles are experiencing increased pressure on margins. In 1981, as the price wars fought over branded articles became more intense, we decided to begin a reorganization of the business segments concerned. Limited to the Netherlands, this reorganization sought to concentrate the commercial and administrative activities in Veenendaal, so as to strengthen the division's market position and cut costs.

Viewed against this background, the performance in 1982 on the whole deserves to be labeled satisfactory.

Food

Income in this sector topped the previous year's level.

Duyvis Recter's efforts to strengthen its position in nuts were successful. *Roosvicee®* turned in a creditable performance. Mayolande (France) achieved higher income with its line of *Bénénuts®* assorted nuts and *Bénédicta®* sauces, despite more aggressive competition and government price controls.

California *(soups)* had a satisfactory year, with capacity utilized to the full. By contrast, ROMI *(oils and fats)* saw results deteriorate because of a weakening export market.

Nonfood

Results in this sector trailed the 1981 level.

The introduction of the new phosphateless detergent *Driehoek® sachets* was a success, but high startup and introduction costs took the top off earnings. Margins of the existing line of detergents were pinched by keen competition. Renewed *Biotex®* was nonetheless well received upon its introduction.

Commercialization of *Driehoek® sachets* in other countries is being planned and there is a fair chance of its success.

Excellent results were achieved by Grada Producten, now a fully owned subsidiary, which has a strong position in "B" brand and private label *liquid detergents*.

Blumøller (Denmark) and Tomten (Norway) recorded satisfactory performances. Kortman België had a difficult year, due in part to a devaluation of the Belgian franc.

Business for the international Otarès group *(cleaning systems)* was satisfactory, especially in the Netherlands and in Denmark.

In *bodycare products* 1982 was a fair business year, with notable contributions coming from *Zwitsal®* products and *Zendium®* enzymatic toothpaste. Developed by our own research, *Zendium®* is now attracting outside interest, especially from American companies.

Ashe Laboratories successfully launched a number of new products in the British market.

Outlook for 1983

Despite further declines in consumer spending power, we expect to be able to repeat 1982's earnings performance. This presupposes that we maintain the high quality level of our products and that we respond readily and innovatively to changes in the market.

Otarès (the Netherlands) is a supplier of cleaning and maintenance systems, products, equipment, and know-how to institutions in health care, schools, government institutions, and the food industry.

Miscellaneous products

in Hfl million	1982	1981		*1980*
sales	1,976	1,959	+1%	*1,670*
operating income	51	88	−42%	*116*
in % of sales	2.6	4.5		*6.9*

General

Miscellaneous products largely consist of Enka and Akzona lines, with shares in 1982 sales of 58% and 38%, respectively.

For the greater part of Enka's products business was satisfactory, with membranes and engineering plastics doing best. This contrasts with the earnings picture of Akzona's electrical/electronic wire and cable products and systems, and of its leathers, which portrays the state of the market in the United States.

Enka products

Sales of Barmag Barmer Maschinenfabrik (Federal Republic of Germany) and of its subsidiaries in Switzerland, the United States, Brazil, and Hong Kong were up 13% to Hfl 402 million. Contributions to this rise, which is satisfactory in light of the unabated recession, came from all product segments, namely *spinning and texturing machines for the man-made fiber industry, machines for the plastic industry,* and *hydraulic and automotive products,* including vacuum pumps for diesel car servobraking systems. The principal segment, with high exports, is composed of equipment for the fiber industry.

There is a healthy order backlog, holding out the promise of a repetition of 1982's performance.

Akzo Plastics' sales gained 8% at Hfl 260 million. This gain is attributable to the satisfactory growth in shipments of *engineering plastics*, particularly of compounds. The basic ingredients of these specialties are *Akulon®* polyamides 6 and 6.6, *Arnite®* PETP and PBTP polyesters, and the polyester-based *Arnitel®* thermoplastic elastomer.

The concentration on high-value compounds is unmistakably beginning to pay dividends. A major expansion of capacity will be completed in 1983, as will a pilot installation for the formulation of new compounds. We hope that these additions will enable us to respond better and faster to the varied needs of users in respect of high-grade plastics for specific purposes.

Aggregate sales of the other Enka products, such as membranes, industrial colloids, nonwovens, household products, and packaging materials, advanced 3% to Hfl 490 million.

Cuprophan® dialysis membranes for artificial kidneys did extremely well, strengthening our leading position in the world market. The trend toward greater consumption of hollow fiber at the expense of tubular membranes continued, especially in Japan.

Plasmaphan® specialty hollow fibers for the separation of blood plasma and blood cells, offer prospects to eliminate toxins from the bloodstream. Modules incorporating *Plasmaphan®* hollow fibers will also be used in the

Our Arnitel® *thermoplastic elastomer is a natural for use in vulnerable body parts such as bumpers and front and rear spoilers.* Arnitel® *possesses high impact resistance across a wide range of temperatures (from +120°C to −40°C), is flexible, and coats well.*

Sports shoes are another interesting end use for Arnitel® *elastomer.*

separation of plasma from the blood of a donor for immediate transfusion, with the blood cells being returned on-line to the donor's circulation. This is an alternative to the present centrifugal separation technique. Also under development are membranes for plasma fractionation, and for hemofiltration and hemodiafiltration.

Promising industrial applications are beginning to emerge for our microporous membrane material, which permits high concentrations of solids to be separated from liquids by means of crossflow microfiltration. One job which it could do efficiently is, for instance, recovery of (expensive) metals.

Enka AG and Akzona Inc. decided to swap their minority share holdings in Membrana Inc. and Membrana GmbH, respectively, and at the same time dissolved the joint management of the two companies. Their cooperation in research, product development, and marketing of nonmedical membranes will be continued. Worldwide sales of medical membranes remain the responsibility of Enka AG.

Cellulose-based *industrial colloids* generated lower earnings than in 1981 as a result of a decline in gas and oil well drilling in the United States and Canada. Elsewhere shipments of drilling mud additives held their own.

Peridur® ore pelletizer, a quality-enhancing and energy-saving product, was unable to realize its sales potential because of the slack world steel market.

The other colloids, targeted at the detergents, food, and other industries, achieved results which were comparable to those of 1981.

A company-developed superabsorbent *(Akucell® SW)* is finding growing application in hygienic products.

For Colbond *nonwovens* 1982 was a good year. The properties of our polyester nonwovens make them eminently suitable as reinforcement of bituminous roofing sheets and as carpet tufting base, especially for thermally molded auto carpets. We succeeded in strengthening our market position in these end-use areas.

Akzona products

In the year under review Brand-Rex was confronted with a further deterioration of key markets such as housing construction, aerospace, and public utilities. The electronics and telecommunication industries also remained depressed.

Sales fell 1% to Hfl 644 million, but the drop in income was substantially greater.

Armira *(leathers)* had to do business in a very feeble market. Sales were almost halved to Hfl 106 million, and earnings were wiped out.

Outlook for 1983

For miscellaneous products in the aggregate we anticipate reasonably constant earnings on much the same level as in 1982.

Arnhem, March 25, 1983

The Board of Management

Crossflow microfiltration unit, consisting of a cylindrical casing and an insert of bundled microporous polypropylene tubes, has applications in the pharmaceutical industry.

Organization of the Akzo Group

	Akzo N.V. Arnhem Netherlands Akzo	Central staff departments Central service organizations
Divisions and products	**Enka** Wuppertal FRG	man-made fibers, machinery, plastics, membranes, films, nonwovens, industrial colloids, various industrial products
	Akzo Zout Chemie Hengelo Netherlands	salt, chlorine, alkali products, VCM, methanol, petrochemicals
	Akzo Chemie Amersfoort Netherlands	specialty chemicals, organic chemicals, industrial chemicals, catalysts
	Akzo Coatings Hoofddorp Netherlands	paints, stains, synthetic resins, adhesives
	Akzo Pharma Oss Netherlands	ethical drugs, nonprescription products, hospital supplies and equipment, raw materials for the pharmaceutical industry, veterinary products
	Akzo Consumenten Produkten The Hague Netherlands	detergents and cleaning products, health and bodycare products, foodstuffs
	Akzona Asheville, N.C. United States	man-made fibers, specialty chemicals, leather, salt, wire, cable, electronic/electrical devices, pharmaceuticals, various industrial products
National organizations	Netherlands	Akzo Nederland, Arnhem
	Belgium	Akzo België, Brussels
	Brazil	Akzo Indústria e Comércio, São Paulo
	Japan	Mercator Internationaal, Tokyo

Management

March 1983

Board of Management of Akzo N.V.

The Board of Management consists of four members who are jointly responsible for directing the Akzo Group. The Board is composed as follows:

A.A. Loudon, President
J. Veldman
H.J.J. van der Werf
H.G. Zempelin

The members are individually entrusted with a number of management tasks.

Mr Loudon is responsible for strategic planning as well as social and financial policies. He also coordinates Akzona's activities within the Group.

Mr Veldman is charged with the supervision of the activities of Akzo Coatings, Akzo Pharma, and Akzo Consumenten Produkten. In addition, he is responsible for the effective functioning of staff departments and services within the Group.

Mr van der Werf supervises the activities of Akzo Zout Chemie and Akzo Chemie, as well as research and technology within the Group. Furthermore, he is responsible for energy policy.

Mr Zempelin is responsible for the Enka group, for both fiber and nonfiber activities.

The further distribution of work among the members takes account of geographical and functional policy considerations.

J. P. Huges is secretary to the Board of Management and to the Supervisory Council.

W.K.N. Schmelzer acts as adviser to the Board of Management, specifically in relation to international affairs and issues of a general social nature.

Management Committee

The Board of Management is assisted in policy-making by a Management Committee, which is composed as follows:

A.A. Loudon	Chairman
J. Veldman	Deputy Chairman
H.J.J. van der Werf	Deputy Chairman
H.G. Zempelin	Deputy Chairman
S. Bergsma	Financial Affairs
F.A.G. Collot d'Escury	President of Akzo Zout Chemie
M.W. Geerlings	Research and Technology
J.R. Hutter	Deputy President of Enka
H.B. Jacobs	President of Akzo Consumenten Produkten
A.G. Vermeeren	President of Akzo Pharma
M.D. Westermann	President of Akzo Chemie
C. Zaal	President of Akzo Coatings

Central staff officers

M.W. Arts	Internal Auditing
Mrs M.A. van Damme-van Weele	Chemical Development
A. Dijkxhoorn	Research and Development
J.R. Eppenga	Engineering
A.M. van Haastrecht	Organization
F.H. Hensel	Financial Affairs
C. Hoek	Legal Affairs
J.P. Huges	Public Affairs
J.H. Katgert	Accounting and Management Information
B. Klaverstijn	Press Relations
E.W. Meier	International Relations
J.K.G. Meijnen	Safety, Environmental, and Insurance Affairs
H.W. Muzerie	Group Development
O.H. Nijman	Fiscal Affairs
R.J. Ovezall	Corporate Personnel Affairs
P.W. Pfeiffer	Energy and Quality Control
R. Sieders	Patents
T.M. Tieleman	Economic Affairs and Planning
A.W. Zijlker	Computer Affairs

Management of divisions

Enka

H.G. Zempelin	President
J.R. Hutter	Deputy President
H. Stöhr	
G. Tückmantel	
J. Verhaar	

A. Bendziula
D. Sorgdrager

A distinct unit of Enka is
Enka International

R. van Wingerde	President
G.G. Cerutti	

Akzo Zout Chemie

F.A.G. Collot d'Escury	President
L.J. Boone	
A. van Es	
H.A. van Karnebeek	

Akzo Chemie

M.D. Westermann	President
J.C.P. van Oosterom	

H.C. Bijvank
M.E. Hartman
J. den Hoed
D.B. Kagenaar
A. Moolenburgh
H.A. Praetorius
E. Snoeck

Akzo Coatings

C. Zaal	President
K. Bakker	
H.C. Ekker	
W.L.W. Ludekens	
K.G. Schultze	

Akzo Pharma

A.G. Vermeeren	President
W. Smit	
J.H.H. Florax	

B.H.M. van Dommelen
H.E. Foord
F.L. Vekemans

Akzo Consumenten Produkten

H.B. Jacobs	President
M.A. Hoolboom	
P.B. van Hulst	
A.M. van der Linden	
J.E.H. Sikkink	

Akzona

G.J. Coli	President
J.M. Hessels	
V.A. Parsons	
M.R. Poston	

H.C. Enloe
J.C.E. Fuller
F.R. Dunn
J.W.M. Kieboom
J.L. Ryon, Jr.
H. Wasiele, Jr.

Managements of national organizations

Akzo Nederland

W.J. Wolff	President
A. van Es	
P. Hollander	
D.B. Kagenaar	
A.M. van der Linden	
W. Smit	
D. Sorgdrager	
G. Tellegen	

Akzo België

F.C.L. De Deken	President

Akzo Indústria e Comércio, Brazil

J.W. Bootz	President

Mercator Internationaal, Japan

T. Haruki	Managing Director

Principles of consolidation

The consolidated financial statements include Akzo N.V. and all companies in which Akzo N.V. or any of its majority subsidiaries has an interest, directly or indirectly, of more than 50% of the outstanding voting stock. 100% of the assets, the liabilities, and the results of the consolidated companies are included. Minority interest in Group equity and Group income (loss) is shown separately.
The principal affiliated companies are listed on pages 55 and 56. A list of names and registered offices of affiliates, drawn up in conformity with article 2:320, paragraph 2, and using paragraph 3, subpara a, of the Dutch Civil Code, has been filed at the Trade Registry of Arnhem.

Principles of valuation and determination of income

The valuation principles for property, plant and equipment, investments in nonconsolidated companies, other noncurrent assets, inventories, prepaid expenses, securities included in cash and marketable securities, and provisions are stated separately in the notes to the consolidated balance sheet.
Receivables, cash, and liabilities are stated at face amounts, less such provisions for receivables as are deemed necessary. The parts of long-term receivables and long-term debt becoming due within one year are included under short-term receivables and other current liabilities, respectively.
Preparation and startup expenses of large investment projects are capitalized and charged against income, in not more than five equal annual installments, after the facilities concerned have been put into service.
Other intangible assets are not capitalized; they are charged against operating income.
Purchased goodwill is charged directly against Group equity.

In the consolidated balance sheet, amounts in foreign currencies have been translated into guilders at rates virtually equal to the rates of exchange in force at year's end. The valuation in guilders of the U.S. dollar convertible debentures is based, however, on a rate of U.S. $ 1 = Hfl 3.60, except for the portion due within one year.
In the consolidated statement of income, foreign currencies have been translated into guilders at rates of exchange fixed for each quarter as typical of the rates then applicable.
Foreign exchange differences are included in income, except for foreign exchange differences resulting from translation into guilders, at changed exchange rates, of stockholders' equities of affiliated companies outside the Netherlands; the latter differences are directly added to, or deducted from, Group equity.

The principal exchange rates (rounded) used in drawing up the balance sheet and the statement of income are:

		balance sheet		statement of income	
	unit	Dec. 31, 1982	Dec. 31, 1981	1982*	1981*
U.S. dollar	1	2.62	2.47	2.67	2.50
Deutsche mark	1	1.11	1.10	1.10	1.11
Pound sterling	1	4.23	4.73	4.68	5.05
French franc	1	0.39	0.43	0.41	0.46
Swiss franc	1	1.32	1.37	1.32	1.28
Spanish peseta	100	2.10	2.55	2.45	2.71
Braz. cruzeiro	100	1.04	1.94	1.51	2.73
Arg. peso	10,000	0.54	2.33	1.56	6.08

* average exchange rates

Current-value information

The principles of valuation and determination of income used in the consolidated financial statements shown on pages 34 through 43 are based on historical cost. The effect of price rises on Group equity and income is shown on pages 44 and 45.

Net income per share of common stock

Net income per share of common stock is calculated by dividing net income, less the part thereof distributed in the form of dividends on priority and cumulative preferred stock, by the number of shares of common stock outstanding at December 31.

Consolidated balance sheet of the Akzo Group

after allocation of profit

see notes on pages 37 through 41

in Hfl million	December 31, 1982*		December 31, 1981	
noncurrent assets				
property, plant and equipment	3,910.5		3,673.4	
investments in nonconsolidated companies	351.4		351.1	
other noncurrent assets	104.7		134.5	
		4,366.6		4,159.0
current assets				
inventories	2,542.0		2,506.5	
short-term receivables	2,319.4		2,570.4	
prepaid expenses	62.9		62.8	
cash and marketable securities	777.8		897.5	
		5,702.1		6,037.2
total assets		10,068.7		10,196.2
Group equity				
Akzo N.V. stockholders' equity	2,488.1		2,448.7	
minority interest in Group equity	122.0		406.8	
		2,610.1		2,855.5
long-term liabilities				
provisions	1,426.8		1,335.1	
subordinated loans	175.0		75.0	
other long-term debt	2,883.5		2,715.2	
		4,485.3		4,125.3
current liabilities				
bank borrowings and overdrafts	570.9		613.2	
other current liabilities	2,402.4		2,602.2	
		2,973.3		3,215.4
total Group equity and liabilities		10,068.7		10,196.2

* based on a cash dividend of Hfl 1.60 per common share of Hfl 20 par value

Consolidated statement of income of the Akzo Group

see notes on pages 41 and 42

in Hfl million		1982		1981
sales		14,154.3		14,475.7
operating costs				
salaries, wages, and social charges	(4,229.5)		(4,181.6)	
depreciation	(533.0)		(526.6)	
other costs	(8,898.6)		(9,203.4)	
		(13,661.1)		(13,911.6)
operating income		493.2		564.1
interest		(297.1)		(328.8)
operating income less interest		196.1		235.3
taxes on operating income less interest		(27.9)		(79.4)
		168.2		155.9
equity in earnings of nonconsolidated companies		58.4		82.4
Group income before extraordinary items		226.6		238.3
extraordinary items		(49.2)		7.2
Group income		177.4		245.5
of which minority interest		(12.7)		(6.8)
Akzo N.V. net income		164.7		238.7
net income before extraordinary items		210.9		224.2
extraordinary items	(49.2)		7.2	
of which minority interest	3.0		7.3	
		(46.2)		14.5
Akzo N.V. net income		164.7		238.7

	1982	1981
net income before extraordinary items, per common share of Hfl 20 par value, in Hfl	7.13	7.58
net income per common share of Hfl 20 par value, in Hfl	5.56	8.07

Consolidated statement of changes in financial position of the Akzo Group

see notes on page 43

in Hfl million		1982		1981
working capital (excess of current assets over current liabilities) at January 1		2,822		2,813
source of funds				
Group income before extraordinary items		227		239
depreciation and disposals	564		566	
other noncash items	21		63	
		585		629
		812		868
extraordinary items affecting funds		(56)		(22)
funds from operations		756		846
disposal of participations	15		14	
working capital of consolidated companies disposed of	(1)		(10)	
		14		4
borrowings		670		425
issuance of stock by Group companies		–		2
		1,440		1,277
application of funds				
expenditures for property, plant and equipment		730		693
acquisitions	230		36	
working capital of new consolidated companies	(2)		–	
		228		36
other noncurrent assets and similar items		(9)		10
		949		739
repayment of borrowings		434		452
dividends paid to:				
stockholders of Akzo N.V.	47*		59	
minority stockholders of Group companies	14		17	
		61		76
other applications		89		1
		1,533		1,268
working capital at December 31		2,729		2,822

* based on a cash dividend of Hfl 1.60 per common share of Hfl 20 par value

General

Changes in consolidated companies

In 1982, the 34% of the stock in Akzona Inc., United States, held by third parties was acquired. Société des Dérivés Azotés S.A., Belgium, was included in the consolidated balance sheet because of the increase of our interest to 100%.
There were no other material changes.

Consolidated balance sheet

Property, plant and equipment

Property, plant and equipment are stated at cost, less depreciation, with a revaluation of approximately Hfl 50 million for land acquired long ago. Additionally, revaluations in Brazil and Argentina have been taken into account, and from January 1, 1982 also in Mexico and Colombia, in recognition of the very high inflation in these countries. Cost includes the financing expenses of capital investment projects under construction. Government subsidies, etc. are deducted from cost of acquisition.
Depreciation is calculated by the straight-line method based on estimated life, which in the majority of cases is 10 years for plant equipment and machinery and ranges from 20 to 30 years for buildings. In cases where the book value calculated in this way exceeded the value to the business, additional write-offs were made.

The table below shows the changes in 1982.

in Hfl million	total	land	buildings	plant equipment and machinery	means of transport	assets not used in the production process
situation at December 31, 1981						
cost of acquisition	10,955.6	208.5	2,183.4	8,218.6	119.0	226.1
depreciation	(7,282.2)		(1,133.3)	(5,880.0)	(85.4)	(183.5)
book value	3,673.4	208.5	1,050.1	2,338.6	33.6	42.6
changes in book value						
changes in consolidated companies	71.1	1.7	8.8	60.3	0.3	
capital expenditures	729.7	2.9	78.3	627.6	14.2	6.7
depreciation	(533.0)		(74.8)	(443.7)	(11.8)	(2.7)
disposals	(30.6)	(3.6)	(9.8)	(13.2)	(1.5)	(2.5)
additional write-offs	(32.3)	(5.1)	(6.0)	(20.4)	(0.2)	(0.6)
changes in exchange rates and revaluations	17.3	3.6	3.2	11.1	(0.4)	(0.2)
other	14.9	(2.0)	(3.2)	6.5	(0.6)	14.2
total changes in 1982	237.1	(2.5)	(3.5)	228.2	0.0	14.9
situation at December 31, 1982						
cost of acquisition	11,347.3	211.1	2,223.0	8,549.4	122.3	241.5
depreciation	(7,436.8)	(5.1)	(1,176.4)	(5,982.6)	(88.7)	(184.0)
book value	3,910.5	206.0	1,046.6	2,566.8	33.6	57.5

Capital investment projects under construction included in cost of acquisition and book value totaled Hfl 516.9 million at December 31, 1982 (at December 31, 1981: Hfl 415.2 million).

Purchase commitments not included in the consolidated balance sheet totaled Hfl 153.2 million at December 31, 1982 (at December 31, 1981: Hfl 203.7 million).

Investments in nonconsolidated companies

This item includes the nonconsolidated companies and the loans to these companies. Investments in nonconsolidated companies are stated at the amount of Akzo's share in stockholders' equity. The calculation of stockholders' equity has been based as much as possible on the Akzo principles of valuation. Loans to nonconsolidated companies totaled Hfl 5.2 million (at December 31, 1981: Hfl 3.9 million).

in Hfl million	
situation at December 31, 1981	351.1
investments	16.1
equity in 1982 earnings	57.5
dividends received	(50.6)
changes in exchange rates and revaluations	(9.8)
other changes	(12.9)
situation at December 31, 1982	351.4

Other noncurrent assets

This item includes mainly long-term receivables, less Hfl 21.4 million for discounted receivables (at December 31, 1981: Hfl 22.6 million), and other assets that are not directly realizable. Other noncurrent assets are stated at cost or estimated value, whichever was lower.

Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is defined as full cost exclusive of interest, research expenditure, and general administrative expense, taking into account the stage of processing. The cost of inventories has been accounted for using the FIFO formula. Provisions have been made for obsolescence and other risks.
In the valuation of inventories, profits arising as a result of transactions between consolidated companies have been eliminated.

in Hfl million	Dec. 31, 1982	Dec. 31, 1981
raw materials and supplies	710.7	738.4
work in process	599.5	616.5
finished goods	1,231.8	1,151.6
	2,542.0	2,506.5

Short-term receivables

in Hfl million	Dec. 31, 1982	Dec. 31, 1981
trade receivables	2,155.1	2,376.3
receivables from nonconsolidated companies	69.6	74.7
other receivables	405.9	427.1
	2,630.6	2,878.1
of which discounted	311.2	307.7
	2,319.4	2,570.4

Prepaid expenses

Prepaid expenses are stated at face amounts. This item includes Hfl 18 million (at December 31, 1981: Hfl 14 million) in respect of discount on borrowings and costs of negotiating loans, which are charged to income over the life of the loans.

Cash and marketable securities

With few exceptions, securities included in this item are listed on stock exchanges. They are stated at cost or market value, whichever was lower.

in Hfl million	Dec. 31, 1982	Dec. 31, 1981
securities	53.5	58.8
short-term investments	614.6	719.0
cash on hand and in banks	109.7	119.7
	777.8	897.5

The total amount of medium- and long-term credit facilities arranged by Akzo but not yet utilized was approximately Hfl 750 million at December 31, 1982 (at December 31, 1981: approximately Hfl 940 million).

Group equity in Hfl million	capital stock	capital surplus, paid in	other reserves	stock-holders' equity	minority interest	Group equity
situation at December 31, 1981	592.5	658.0	1,198.2	2,448.7	406.8	2,855.5
changes in stock of Group companies					0.2	0.2
goodwill resulting from acquisition of companies			(0.5)	(0.5)	(3.6)	(4.1)
retained earnings			117.3	117.3	(1.4)	115.9
changes in exchange rates and revaluations			(77.4)	(77.4)	15.4	(62.0)
acquisition of Akzona Inc. stock (34%)					(295.4)	(295.4)
situation at December 31, 1982	592.5	658.0	1,237.6	2,488.1	122.0	2,610.1

At least Hfl 210 million of the capital surplus, paid in (at December 31, 1981: Hfl 210 million) can be considered free from income tax within the meaning of the Dutch 1964 Income Tax Law (Wet op de Inkomstenbelasting 1964).

Provisions

This item comprises provisions which do not refer to specific assets.

in Hfl million	Dec. 31, 1982	Dec. 31, 1981
deferred taxes	304.6	335.3
pension rights	426.7	435.2
other provisions	695.5	564.6
	1,426.8	1,335.1

The current portions in respect of provisions of pension rights and other provisions amount to approximately Hfl 200 million (at December 31, 1981: approximately Hfl 140 million).

in Hfl million	
situation at December 31, 1981	1,335.1
changes in consolidated companies	1.5
changes in exchange rates	(3.1)
additions less amounts used	3.4
other changes, principally due to acquisition of Akzona Inc. stock	89.9
situation at December 31, 1982	1,426.8

Provisions for deferred taxes

This item includes the tax liabilities, less the part expected to be settled in 1983. These liabilities are stated at face amounts. See also the note to taxes on income (page 42).

Provisions in respect of pension rights

Most Group companies have arranged appropriate pension plans for their employees, with due observance of the statutory regulations and customs in the countries concerned, including the computational methods and interest rates used. The ensuing liabilities and the required contributions and admission fees are generally computed on an actuarial basis.
The item salaries, wages, and social charges in the consolidated statement of income includes Hfl 320 million (1981: Hfl 340 million) for pension expense.
At December 31, 1982, as at December 31, 1981, the present value of the pension benefits was on balance fully covered by:
- provisions, in the aggregate amount of Hfl 427 million (at December 31, 1981: Hfl 435 million), made by Group companies in their balance sheets;
- the funds accumulated in independent pension funds through payment of contributions.

Other provisions

This item includes provisions for liabilities whose extent cannot be ascertained with accuracy, and provisions for various operating risks. The amounts of the provisions are fixed in relation to the liabilities and risks concerned.
The principal provisions are for restructuring of activities and total Hfl 285 million (at December 31, 1981: Hfl 325 million).
The provisions also include amounts for liabilities in respect of guarantees, and for self-insurance and litigation.

Moreover, this item comprises an amount of Hfl 91 million arising from the difference between the net asset value and the purchase price of the Akzona Inc. stock acquired in 1982. In principle, the difference is to be added to income over a period of not more than five years.

Subordinated loans

This item is composed of the amounts borrowed so far (total Hfl 175 million, of which Hfl 100 million in 1982) in respect of subordinated loans arranged by Akzo Nederland B.V., together with either Enka B.V. or Akzo Zout Chemie Nederland B.V., in the aggregate amount of Hfl 225 million. Akzo N.V. has agreed to be jointly and severally liable for these loans. They are subordinated to all third-party debts of the companies named.
The interest payable on borrowings under these loan agreements is based on the going rate for comparable credit facilities and averages 11.8% (1981: 12.0%).
Repayment will take place in the years 1983 through 1992.
Redemption before maturity is permitted as from September 1, 1987.

Other long-term debt

in Hfl million	Dec. 31, 1982	Dec. 31, 1981
convertible debentures	168.6	193.8
other debentures	862.4	697.9
installment buying and leasing arrangements	34.2	37.3
private borrowings and other long-term debts	2,161.8	2,184.7
	3,227.0	3,113.7
current portion	343.5	398.5
	2,883.5	2,715.2

in Hfl million	
situation at December 31, 1981	2,715.2
changes in exchange rates	(23.0)
borrowings	570.2
repayment of borrowings	(434.1)
other changes	55.2
situation at December 31, 1982	2,883.5

The breakdown by country is shown in the following table.

in Hfl million	Dec. 31, 1982	Dec. 31, 1981
the Netherlands	1,772.9	1,581.6
Fed. Rep. of Germany	211.3	194.4
United States	653.5	637.3
other countries	245.8	301.9
	2,883.5	2,715.2

Aggregate maturities after 1983 are as follows:

during the years 1984 through 1988	Hfl 1,591 million
during the years 1989 through 1993	Hfl 1,132 million
after 1993	Hfl 161 million
	Hfl 2,884 million

The average interest rate is 8.8 % (1981: 9.9%).
The book value of assets financed by installment buying and leasing amounts to approximately Hfl 25 million (at December 31, 1981: approximately Hfl 32 million).
Long-term debts have been secured to an aggregate amount of Hfl 179 million (at December 31, 1981: Hfl 275 million) by means of mortgages, etc. For long-term debts of Akzona Inc. amounting to Hfl 445 million (at December 31, 1981: Hfl 420 million) commitments have been entered into not to create a charge on certain assets.

Convertible debentures	*in Hfl million*
The amount outstanding at December 31, 1982, of 4¾% debentures Akzo N.V. 1969 convertible into Akzo N.V. common stock was U.S. $ 49 million. The conversion price is Hfl 127.10 per share of Hfl 20 par value, based on an exchange rate of U.S. $ 1 = Hfl 3.60. The valuation of these debentures in guilders is based on the same exchange rate, except for the portion due within one year. Redemption at par (by drawing) occurs in 10 equal annual installments of U.S. $ 7 million, the first of which became due in 1980. Redemption before maturity is permitted. This borrowing includes the debentures held available for exchange of the remaining 4¾% convertible debentures Zout-Organon B.V. of U.S. $ 1,000 each; 18 of these debentures have not been exchanged.	168.6

Other debentures	*in Hfl million*
Currently outstanding amount of 11¼% debentures Akzo N.V. 1974. These debentures are payable in 10 approximately equal annual installments, the first of which became due on November 1, 1975. Redemption before maturity is not permitted.	14.8
Sfr 60 million principal amount of 7¾% debentures Akzo N.V. 1975. Subject to certain conditions, these debentures will be repaid in 3 annual installments of Sfr 2 million each in the years 1983 through 1985 and in 4 annual installments of Sfr 4 million each in the years 1986 through 1989. The remaining amount will be payable at May 9, 1990. Redemption before maturity is permitted.	79.0
to be carried forward	93.8

carried forward	93.8
Currently outstanding amount of 9¼% debentures Akzo N.V. 1976. These debentures are payable in 5 approximately equal annual installments, the first of which became due on July 15, 1982. Redemption before maturity is not permitted.	100.0
Hfl 125 million principal amount of 9½% debentures Akzo N.V. 1979. These debentures will be repaid in 4 approximately equal annual installments in the years 1983 through 1986. Redemption before maturity is not permitted.	125.0
Currently outstanding amount (Lfrs 440 million) of 9¼% debentures Akzo N.V. 1979/1987. These debentures will be repaid in 4 annual installments of Lfrs 30 million each in the years 1983 through 1986. The remaining amount will be payable at October 25, 1987. Redemption before maturity is permitted as from October 25, 1983.	24.7
DM 125 million principal amount of 9% debentures Akzo N.V. 1980/1990. These debentures will be repaid in 5 annual installments in the years 1986 through 1990: DM 12.5 million in 1986, DM 25 million annually in 1987 through 1989, and the remaining amount of DM 37.5 million in 1990. Redemption before maturity is permitted as from May 15, 1985.	138.1
DM 100 million principal amount of 9½% debentures Akzo N.V. 1982/1989. These debentures will be repaid on July 1, 1989. Redemption before maturity is permitted as from July 1, 1987.	110.5
Hfl 100 million principal amount of 10¾% debentures Akzo N.V. 1982 due 1988/1992. Redemption by drawing will occur in 5 approximately equal annual installments in the years 1988 through 1992. Redemption before maturity is not permitted.	100.0
Profit-sharing employee debentures Akzo N.V.	1.1
Total other debentures Akzo N.V.	693.2
Other debentures issued by consolidated companies	169.2
	862.4

Other current liabilities

in Hfl million	Dec. 31, 1982	Dec. 31, 1981
suppliers	1,009.8	1,115.5
nonconsolidated companies	57.1	42.0
taxes on income*	33.8	40.4
Akzo N.V. dividend	47.4	59.3
current portion of long-term debt	343.5	398.5
pensions	3.0	1.8
other liabilities and accrued charges	907.8	944.7
	2,402.4	2,602.2

* less tax receivables of Hfl 27 million (at December 31, 1981: Hfl 40 million)

Liabilities not shown in the balance sheet

With regard to nonconsolidated companies and third parties, guarantees were given and liabilities contracted to an aggregate amount of Hfl 216 million (at December 31, 1981: Hfl 278 million), of which Hfl 80 million (at December 31, 1981: Hfl 156 million) direct by Akzo N.V.
In respect of leasehold, rent, etc., liabilities have been contracted for a number of years to an amount of approximately Hfl 72 million (at December 31, 1981: approximately Hfl 63 million) per year.

Consolidated statement of income

Sales

This item shows the total of amounts invoiced to third parties, including nonconsolidated companies, in respect of goods supplied and services rendered, less sales taxes and excise duties. There are practically no differences in timing of invoicing and delivery.

in Hfl million	1982	1981
man-made fibers	4,359	4,678
chemical products	3,817	4,011
coatings	1,572	1,513
pharmaceuticals	1,563	1,484
consumer products	1,055	1,013
miscellaneous products	1,976	1,959
	14,342	14,658
intra-Group deliveries	(188)	(182)
	14,154	14,476

Depreciation

in Hfl million	1982	1981
buildings	74.8	71.9
plant equipment and machinery	443.7	431.7
means of transport	11.8	11.6
assets not used in the production process	2.7	11.4
	533.0	526.6

For the method of calculation of depreciation, see page 37.

Operating income

in Hfl million	1982	1981
man-made fibers	(19)	33
chemical products	89	125
coatings	97	110
pharmaceuticals	233	190
consumer products	47	50
miscellaneous products	51	88
	498	596
nonallocated costs	(5)	(32)
	493	564

Interest

in Hfl million	1982	1981
interest paid	(447.3)	(486.3)
interest received, including income from securities, etc.	150.2	157.5
	(297.1)	(328.8)

Interest paid decreased by Hfl 48 million (1981: Hfl 38 million) due to the capitalization of financing expenses of capital investment projects under construction.

Taxes on income

The taxes on earnings included in this item consist of both current and deferred tax liabilities. From the losses incurred, taxes have been deducted to the extent that they can be offset against taxes charged to income in previous years. No tax deductions are made from earnings to the extent that these earnings can be offset against losses suffered in previous years. Therefore, a portion of income (loss) is not included in taxable income.
At December 31, 1982 (as also at December 31, 1981) losses not yet compensated amounted to approximately Hfl 800 million.

Within the compensation periods provided by law, earnings to be achieved in the coming years can therefore be included up to this amount in the statement of income without tax deductions.

The taxes included in the statement of income break down as follows:

in Hfl million	1982	1981
taxes on operating income less interest	(27.9)	(79.4)
taxes on equity in earnings of nonconsolidated companies	(24.0)	(28.8)
taxes included in extraordinary items	5.3	6.8
	(46.6)	(101.4)

Equity in earnings of nonconsolidated companies

Under this heading are included the Group's equity in earnings of nonconsolidated companies and interest received on loans granted to these companies, with due allowance made for taxes on these items.

Extraordinary items

This item includes important but isolated gains and losses not relating to normal operations; the taxes concerned have been taken into account.

in Hfl million	1982	1981
extraordinary gains	2.4	57.3
extraordinary losses	(51.6)	(50.1)
	(49.2)	7.2

Extraordinary losses for 1982 principally relate to the restructuring of activities.

Working capital

in Hfl million	Dec. 31, 1982	Dec. 31, 1981
inventories	2,542	2,506
short-term receivables	2,319	2,570
prepaid expenses	63	63
cash and marketable securities	778	898
bank borrowings and overdrafts	(571)	(613)
other current liabilities	(2,402)	(2,602)
	2,729	2,822

Funds from operations

This item is computed from Group income, with adjustments for items which in years prior to the fiscal year caused, or which will yet cause, increases or decreases in funds.
For this purpose, Group income before extraordinary items is augmented by the amount for depreciation and disposals, and by the balance of the changes detailed below.

in Hfl million	1982	1981
changes in provisions from normal operational activities	43	38
retained earnings of nonconsolidated companies	(7)	13
other	(15)	12
	21	63

Extraordinary items affecting funds are determined from the extraordinary items as follows:

in Hfl million	1982	1981
extraordinary items	(49)	7
changes in provisions of an unusual character	(39)	(44)
other	32	15
	(56)	(22)

Disposal of participations

This item primarily concerns the sale of our interest in Wellman International Ltd, Ireland.

Acquisitions

in Hfl million	1982	1981
investments in nonconsolidated companies	16	36
acquisition of consolidated companies	214	–
	230	36

Acquisitions in 1982 mainly relate to the purchase of the 34% of the stock in Akzona Inc., United States, held by third parties, and to the increase to 100% of our interest in Société des Dérivés Azotés S.A., Belgium.

Current-value information

Because of inflation in virtually all countries, the current value of property, plant and equipment and of investments in nonconsolidated companies, included in noncurrent assets, is higher than is shown in the consolidated balance sheet. Hence, Group equity is correspondingly higher.
Income is lower if costs are determined in relation to current prices. There exists no generally accepted method to show the effects of price rises on Group equity and income. The method of calculation adopted in this section is set forth below.

Method of calculation

Condensed consolidated balance sheet

Noncurrent assets
The current value of land has generally been approximated on the basis of appraisals.
To calculate the current value of buildings, machinery, and equipment, indexes from external sources in the principal countries of establishment were used. Where the indexes did not themselves reflect a decrease in value as a result of technical advances, a standard deduction was made from the current values so derived, which, for the period through 1981, was estimated to be 1% annually for buildings and 2% annually for machinery and equipment, and which for 1982 was put at nil for both categories.
In cases where the current value exceeds the value to the business, the latter value is used. This applies in particular to part of the buildings, machinery, and equipment for the production of man-made fibers in Europe and the United States.
Current value in foreign currencies has been translated into guilders at rates virtually equal to the rates of exchange in force at year's end.
For nonconsolidated companies, an overall revaluation was made on the basis of the estimated current value of their property, plant and equipment, with due allowance made for taxes.

Current assets
For inventories, no revaluation was made, as the value shown in the consolidated balance sheet does not differ materially from the current value of inventories.

Stockholders' equity
Stockholders' equity on a current-value basis has been determined by adding to stockholders' equity as shown in the consolidated balance sheet, the amount of the revaluation of noncurrent assets, with minority interest being taken into account.
Due allowance was made for deferred taxes arising from the revaluation of property, plant and equipment, which were calculated at a rate of 50%.

Liabilities
Liabilities on a current-value basis have been determined by adding to liabilities as shown in the consolidated balance sheet the amount for deferred taxes arising from the revaluation of property, plant and equipment.

Condensed consolidated statement of income

Operating costs
The amount of the adjustment to current prices of depreciation and other operating costs includes:
- the additional depreciation needed if depreciation is computed on the current value of property, plant and equipment;
- the increase in the value of inventories computed for the normal inventory level.

Taxes
The amount of the adjustment of taxes is computed on the basis of a rate of 50% applied to additional depreciation and to the increase in the value of inventories.

Equity in earnings of nonconsolidated companies
The amount of the adjustment to current prices of equity in earnings of nonconsolidated companies reflects the effect of additional depreciation and of the increase in the value of inventories on earnings of these companies, with due allowance made for taxes.

Financial ratios		1982		1981
	on the basis of historical cost	on the basis of current value	on the basis of historical cost	on the basis of current value
Group equity : liabilities	0.35	0.41	0.39	0.46
stockholders' equity per common share of Hfl 20 par value, in Hfl	84.06	108.52	82.72	108.32
operating income as percentage of sales	3.5	1.8	3.9	1.3
net income before extraordinary items:				
per common share of Hfl 20 par value, in Hfl	7.13	3.21	7.58	1.62
as percentage of stockholders' equity	8.5	3.0	9.2	1.5
net income				
per common share of Hfl 20 par value, in Hfl	5.56	1.65	8.07	2.11
as percentage of stockholders' equity	6.6	1.5	9.7	1.9

Condensed consolidated balance sheet	December 31, 1982		December 31, 1981	
in Hfl million	on the basis of historical cost	on the basis of current value	on the basis of historical cost	on the basis of current value
noncurrent assets	4,367	5,867	4,159	5,848
current assets	5,702	5,702	6,037	6,037
total assets	10,069	11,569	10,196	11,885
Akzo N.V. stockholders' equity	2,488	3,212	2,449	3,206
minority interest	122	176	407	551
Group equity	2,610	3,388	2,856	3,757
liabilities	7,459	8,181	7,340	8,128
total Group equity and liabilities	10,069	11,569	10,196	11,885

Condensed consolidated statement of income	1982		1981	
in Hfl million	on the basis of historical cost	on the basis of current value	on the basis of historical cost	on the basis of current value
sales	14,154	14,154	14,476	14,476
operating costs				
depreciation	(533)	(698)	(527)	(701)
other costs	(13,128)	(13,197)	(13,385)	(13,582)
operating income	493	259	564	193
interest	(297)	(297)	(329)	(329)
taxes	(28)	89	(79)	106
equity in earnings of nonconsolidated companies	59	46	83	68
extraordinary items	(49)	(49)	7	7
Group income	178	48	246	45
minority interest	(13)	1	(7)	17
Akzo N.V. net income	165	49	239	62
net income before extraordinary items	211	95	224	47
extraordinary items less minority interest	(46)	(46)	15	15
Akzo N.V. net income	165	49	239	62

Changes in stockholders' equity

in Hfl million		1982		1981
stockholders' equity on a current-value basis at January 1		3,206		2,929
net income	49		62	
goodwill resulting from acquisition of companies	(1)		(2)	
dividend	(47)		(59)	
other changes	5		276	
		6		277
stockholders' equity on a current-value basis at December 31		3,212		3,206

Other changes include the revaluation of noncurrent assets, the increase in the value of inventories, and the effect of changes in exchange rates.

Akzo N.V. balance sheet

after allocation of profit

see notes on page 48

in Hfl million	December 31, 1982*		December 31, 1981	
affiliated companies				
consolidated companies	3,014.8		3,029.3	
nonconsolidated companies	75.3		68.6	
loans to affiliated companies	1,300.1		885.2	
		4,390.2		3,983.1
short-term receivables and prepaid expenses				
receivables from affiliated companies	12.6		17.5	
other receivables	64.5		72.9	
prepaid expenses	19.6		18.6	
		96.7		109.0
cash and marketable securities				
marketable securities	0.2		0.7	
short-term investments	687.8		639.5	
cash on hand and in banks	6.9		15.8	
		694.9		656.0
total assets		5,181.8		4,748.1
stockholders' equity				
common stock	591.9		591.9	
cumulative preferred stock	0.6		0.6	
priority stock	0.0		0.0	
capital stock	592.5		592.5	
capital surplus, paid in	658.0		658.0	
other reserves	1,237.6		1,198.2	
		2,488.1		2,448.7
borrowings				
convertible debentures	168.6		193.8	
other debentures	693.2		523.4	
borrowings from affiliated companies	570.3		385.3	
other borrowings	1,082.8		979.6	
		2,514.9		2,082.1
current liabilities				
amounts due to affiliated companies	3.8		4.6	
dividend	47.4		59.3	
bank borrowings and overdrafts	45.7		57.3	
other liabilities and accrued charges	81.9		96.1	
		178.8		217.3
total stockholders' equity and debts		5,181.8		4,748.1

* based on a cash dividend of Hfl 1.60 per common share of Hfl 20 par value

Akzo N.V. statement of income and allocation of profit

see notes on page 48

in Hfl		1982	1981
net income		164,700,000	238,700,000
reservation, pursuant to art. 39, para 1, of the articles of association		(115,800,000)	(176,300,000)
profit remaining for allocation		48,900,000	62,400,000
with due observance of art. 39, para 2, of the articles of association, it is proposed to allocate this amount as follows:			
to be distributed:			
dividend on priority stock - Hfl 60 per share of Hfl 1,000 par value	2,880		
dividend on cum. pref. stock - Hfl 60 per share of Hfl 1,000 par value	36,120		
dividend on common stock - Hfl 1.60 per share of Hfl 20 par value	47,349,738		
		47,388,738	
to be retained		1,511,262	

Following the acceptance of this proposal, the holders of common stock will receive a dividend of Hfl 1.60 per share of Hfl 20 par value. Of this amount, Hfl 1 will be paid in cash on dividend coupon No. 16. Until September 1, 1983, stockholders may choose to receive, on coupon No. 17, Hfl 0.60 in cash or in common stock, chargeable to capital surplus, at the rate of one new share of Akzo N.V. common stock for 50 dividend coupons No. 17.
The dividend to be paid in cash will be less 25% withholding tax.
The dividend will be made available from May 25, 1983.

Arnhem, March 25, 1983

The Board of Management:

A.A. Loudon
J. Veldman
H.J.J. van der Werf
H.G. Zempelin

The Supervisory Council:

G. Kraijenhoff
J.R.M. van den Brink
Y. Scholten
S.C. Bakkenist
A.G. van den Bos
P.M.H. van Boven
A. Herrhausen
H.L. Merkle
H.J. Schlange-Schöningen
K. Schudel-van Zwanenberg
H.A. van Stiphout
E.G.G. Werner
O. Wolff von Amerongen

Notes to Akzo N.V. balance sheet and statement of income

General

The investments in affiliated companies, as well as the other assets and liabilities, have been valued, and net income has been determined, in accordance with the principles of valuation and determination of income mentioned on page 33. Thus stockholders' equity and net income are equal to stockholders' equity and net income as shown in the consolidated financial statements on pages 34 and 35.

Nonconsolidated companies

in Hfl million

situation at December 31, 1981	68.6
equity in 1982 earnings	10.7
dividends received	(3.6)
changes in exchange rates and revaluations	(0.4)
situation at December 31, 1982	75.3

Cash and marketable securities

Short-term investments include time deposits in the amount of Hfl 130.0 million (December 31, 1981: Hfl 54.8 million), which are not freely available to Akzo N.V.

Capital stock

Authorized capital stock of Akzo N.V. is Hfl 1,030,048,000 and consists of 48 shares of priority stock, par value Hfl 1,000 per share; 30,000 shares of cumulative preferred stock, par value Hfl 1,000 per share; and 50 million shares of common stock, par value Hfl 20 per share.

Outstanding capital stock consists of 48 shares of priority stock, 602 shares of cumulative preferred stock, and 29,593,586 shares of common stock.
The priority stock is held by "Akzostichting" (Akzo Foundation), which is controlled by the members of the Supervisory Council and the Board of Management. The meeting of holders of priority stock has the right to draw up binding lists of nominees for appointment to the Supervisory Council and the Board of Management.

Borrowings

For information on the convertible and other debentures, see the notes to the consolidated financial statements (pages 40 and 41).
Borrowings from affiliated companies have no fixed repayment schedule. A portion of these borrowings bears no interest. To the extent that interest is charged, it averages 8.9% (1981: 10.6%) Interest on other borrowings averages 7.7% (1981: 9.7%).
The repayment schedule for the other borrowings is as follows:

in 1983	Hfl	120 million
during the years 1984 through 1988	Hfl	343 million
during the years 1989 through 1993	Hfl	620 million
	Hfl	1,083 million

Remuneration of Supervisory Council

For 1982, the members of the Supervisory Council were paid a total amount of Hfl 548,667 (1981: Hfl 537,250), of which Hfl 500,000 (1981: Hfl 471,250) was a fixed amount and Hfl 48,667 (1981: Hfl 66,000) was a variable remuneration.
All members receive remuneration.
At end-1982 the Council numbered 13 members (end-1981: 11).

Provisions of the articles of association with regard to profit allocation

Article 39

1

The Board of Management shall be authorized to determine, with the approval of the Supervisory Council, how great a share of the profit as shown by the approved statement of income shall be added to reserves; the general meeting of shareholders may dispose of such reserves only on the proposal of the Board of Management approved by the Supervisory Council. The remainder of the profits shall be put at the disposal of the general meeting of shareholders, with due observance of the provisions in paragraph 2.

2

The remainder of the profits shall, to the extent possible, be allocated as follows:

a

to the holders of priority shares:
six per cent per share or the statutory interest as stated in article 8, paragraph 1, whichever is lower, plus any accrued and unpaid dividends;

b

to the holders of cumulative preferred shares:
six per cent per share, plus any accrued and unpaid dividends;

c

to the holders of ordinary shares:
a dividend of such an amount per share as the remaining profit, less the aforesaid payments and less such amounts as the general meeting of shareholders may decide to carry to reserves, shall permit.

3

The holders of ordinary shares are, to the exclusion of everyone else, entitled to allocations made from reserves accrued by virtue of the provision of the second paragraph sub c.

4

The right to receive dividends and interim dividends shall lapse six years after such dividends and interim dividends have been made payable.

Auditors' report

We have examined the foregoing 1982 financial statements of Akzo N.V., Arnhem. For the purpose of our examination we also have made use of the reports of other independent auditors with respect to a number of subsidiaries.
In our opinion, these financial statements present fairly the financial position of Akzo N.V. at December 31, 1982, and the results of its operations for the year then ended.

Arnhem, March 25, 1983

Klynveld Kraayenhof & Co.

Ten-year financial summary

The figures set forth below are based on historical cost; for figures based on current value, see page 52.

consolidated balance sheet December 31	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973
in Hfl million										
property, plant and equipment	3,911	3,673	3,441	3,273	3,360	3,577	3,904	4,396	4,322	4,235
investments in nonconsolidated companies	351	351	357	297	338	321	288	307	285	282
other noncurrent assets	105	135	119	144	152	148	162	125	175	155
noncurrent assets	4,367	4,159	3,917	3,714	3,850	4,046	4,354	4,828	4,782	4,672
inventories	2,542	2,506	2,454	2,233	1,902	1,920	1,949	2,113	2,562	1,641
short-term receivables	2,319	2,570	2,289	2,231	1,992	1,882	1,787	1,906	1,831	1,954
prepaid expenses	63	63	68	46	48	60	59	51	56	52
cash and marketable securities	778	898	883	805	598	580	611	539	524	840
current assets	5,702	6,037	5,694	5,315	4,540	4,442	4,406	4,609	4,973	4,487
total assets	10,069	10,196	9,611	9,029	8,390	8,488	8,760	9,437	9,755	9,159
capital stock	593	593	593	593	593	593	593	593	593	562
capital surplus, paid in	658	658	658	658	658	658	658	658	658	689
other reserves	1,237	1,198	1,015	1,074	980	1,074	1,377	1,733	2,223	2,036
stockholders' equity	2,488	2,449	2,266	2,325	2,231	2,325	2,628	2,984	3,474	3,287
minority interest in Group equity	122	407	393	408	397	414	486	541	565	573
Group equity	2,610	2,856	2,659	2,733	2,628	2,739	3,114	3,525	4,039	3,860
provisions	1,427	1,335	1,329	1,147	1,054	1,039	942	1,052	958	991
subordinated loans	175	75	25	–	–	–	–	–	–	–
other long-term debt	2,884	2,715	2,717	2,600	2,276	2,496	2,626	2,693	2,124	2,047
long-term liabilities	4,486	4,125	4,071	3,747	3,330	3,535	3,568	3,745	3,082	3,038
bank borrowings and overdrafts	571	613	574	453	386	347	310	308	410	162
other current liabilities	2,402	2,602	2,307	2,096	2,046	1,867	1,768	1,859	2,224	2,099
current liabilities	2,973	3,215	2,881	2,549	2,432	2,214	2,078	2,167	2,634	2,261
total Group equity and liabilities	10,069	10,196	9,611	9,029	8,390	8,488	8,760	9,437	9,755	9,159
invested capital*:										
of consolidated companies	6,881	6,744	6,418	6,074	5,777	6,014	6,415	7,013	7,033	6,221
in nonconsolidated companies	351	351	357	297	338	321	288	307	285	282
total	7,232	7,095	6,775	6,371	6,115	6,335	6,703	7,320	7,318	6,503
property, plant and equipment										
capital expenditures	730	693	645	461	434	409	413	745	799	549
depreciation	533	527	504	506	486	494	533	519	531	540
ratios										
sales : invested capital	2.06	2.15	1.94	1.98	1.85	1.73	1.68	1.39	1.53	1.51
Group equity : liabilities	0.35	0.39	0.38	0.43	0.46	0.48	0.55	0.60	0.71	0.73
Group equity : noncurrent assets	0.60	0.69	0.68	0.74	0.68	0.68	0.72	0.73	0.84	0.83
current assets : current liabilities	1.92	1.88	1.98	2.09	1.87	2.01	2.12	2.13	1.89	1.98

development of stockholders' equity since 1969**
in Hfl million

stockholders' equity at January 1, 1969	2,519
issuance of stock, including capital surplus	405
stock dividends	208
retained earnings	705
goodwill resulting from acquisition of companies	(487)
change in exchange rates and revaluations	(743)
other changes	(119)
stockholders' equity at December 31, 1982	2,488

* total assets less cash and marketable securities, and less non-interest-bearing other current liabilities

** year in which Akzo was established

consolidated statement of income	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973
in Hfl million										
sales	14,154	14,476	12,453	12,015	10,666	10,433	10,750	9,717	10,761	9,418
salaries, wages, and social charges	(4,229)	(4,182)	(3,789)	(3,572)	(3,395)	(3,277)	(3,277)	(3,109)	(3,144)	(2,764)
depreciation	(533)	(527)	(504)	(506)	(486)	(494)	(533)	(519)	(531)	(540)
other costs	(8,899)	(9,203)	(7,744)	(7,248)	(6,364)	(6,422)	(6,635)	(6,106)	(6,314)	(5,350)
operating income (loss)	493	564	416	689	421	240	305	(17)	772	764
interest	(297)	(329)	(261)	(259)	(248)	(245)	(249)	(234)	(147)	(147)
taxes on operating income less interest	(28)	(79)	(48)	(136)	(113)	(65)	(59)	58	(226)	(283)
equity in earnings of nonconsolidated companies	59	83	72	32	28	34	24	13	42	42
Group income (loss) before extraordinary items	227	239	179	326	88	(36)	21	(180)	441	376
extraordinary items	(49)	7	(246)	(60)	(25)	(122)	(167)	(253)	8	(3)
Group income (loss)	178	246	(67)	266	63	(158)	(146)	(433)	449	373
of which minority interest	(13)	(7)	(3)	(36)	(39)	(8)	(7)	(7)	(69)	(82)
net income (loss)	165	239	(70)	230	24	(166)	(153)	(440)	380	291
dividend	47	59	–	71	–	–	–	–	118	107*
common stock, in thousands of shares of Hfl 20 par value	29,594	29,594	29,594	29,594	29,594	29,594	29,594	29,594	29,594	28,062
number of employees	73,700	77,800	83,100	83,000	83,200	84,400	91,100	98,200	105,400	105,800
per common share of Hfl 20 par value, in Hfl										
net income (loss) before extraordinary items	7.13	7.58	5.77	9.75	1.66	(1.75)	0.20	(6.53)	12.55	10.48
net income (loss)	5.56	8.07	(2.35)	7.74	0.82	(5.63)	(5.16)	(14.86)	12.83	10.37
dividend	1.60	2.00	–	2.40	–	–	–	–	4.00	3.80
of which, at stockholder's option, in common stock	0.60									2.60
number of shares entitling holder to one new share	50									18
stockholders' equity	84.06	82.72	76.56	78.55	75.35	78.52	88.78	100.80	117.36	117.08
ratios										
operating income (loss), as percentage of sales	3.5	3.9	3.3	5.7	3.9	2.3	2.8	(0.2)	7.2	8.1
operating income (loss), as percentage of invested capital	7.2	8.4	6.5	11.3	7.3	4.0	4.8	(0.2)	11.0	12.3
salaries, wages, and social charges, as percentage of sales	29.9	28.9	30.4	29.7	31.8	31.4	30.5	32.0	29.2	29.3
net income (loss) before extraordinary items, as percentage of stockholders' equity	8.5	9.2	7.5	12.4	2.2	(2.2)	0.2	(6.5)	10.7	9.0
net income (loss), as percentage of stockholders' equity	6.6	9.7	(3.1)	9.9	1.1	(7.2)	(5.8)	(14.7)	10.9	8.9

* of which Hfl 35 million in cash

consolidated statement of changes in financial position	1982	1981	1980	1979	1978	1977	1976	1975	1974
in Hfl million									
working capital (excess of current assets over current liabilities) at January 1	2,822	2,813	2,766	2,108	2,228	2,327	2,441	2,339	2,226
source of funds									
funds from operations	756	846	631	976	659	539	503	370	1,024
borrowings	670	425	593	538	390	289	496	826	422
funds retained through payment of Akzo N.V. final 1973 dividend in stock									72
other sources	14	6	16	3	19	62	41	17	20
	1,440	1,277	1,240	1,517	1,068	890	1,040	1,213	1,538
application of funds									
expenditures for property, plant and equipment	730	693	645	461	434	409	413	745	799
acquisitions	228	36	77	76	90	60	50	92	65
other noncurrent assets and similar items	(9)	10	(26)	(8)	4	(12)	41	(43)	20
repayment of borrowings	434	452	498	202	557	408	446	277	306
dividends paid to stockholders of Akzo N.V.	47*	59	–	71	–	–	–	–	118
other applications	103	18	(1)	57	103	124	204	40	117
	1,533	1,268	1,193	859	1,188	989	1,154	1,111	1,425
working capital at December 31	2,729	2,822	2,813	2,766	2,108	2,228	2,327	2,441	2,339

figures on a current-value basis	1982	1981	1980	1979	1978	1977	1976	1975	1974
Group equity, in Hfl million	3,388	3,757	3,448	3,357	3,290	3,369	3,764	4,225	4,559
stockholders' equity, in Hfl million	3,212	3,206	2,929	2,828	2,803	2,870	3,193	3,585	3,928
Group equity : liabilities	0.41	0.46	0.45	0.49	0.52	0.54	0.61	0.64	0.74
stockholders' equity, per common share of Hfl 20 par value, in Hfl	108.52	108.32	98.93	95.54	94.69	96.95	107.87	121.14	132.73
operating income (loss)									
in Hfl million	259	193	161	363	269	104	77	(315)	402
as percentage of sales	1.8	1.3	1.3	3.0	2.5	1.0	0.7	(3.2)	3.7
net income (loss) before extraordinary items									
in Hfl million	95	47	53	141	(28)	(124)	(105)	(339)	216
per common share of Hfl 20 par value, in Hfl	3.21	1.62	1.80	4.75	(0.95)	(4.19)	(3.55)	(11.46)	7.30
as percentage of stockholders' equity	3.0	1.5	1.8	5.0	(1.0)	(4.3)	(3.3)	(9.5)	5.5
net income (loss)									
in Hfl million	49	62	(187)	82	(53)	(239)	(264)	(585)	224
per common share of Hfl 20 par value, in Hfl	1.65	2.11	(6.32)	2.76	(1.79)	(8.08)	(8.92)	(19.77)	7.57
as percentage of stockholders' equity	1.5	1.9	(6.4)	2.9	(1.9)	(8.3)	(8.3)	(16.3)	5.7

* based on a dividend in cash of Hfl 1.60 per common share of Hfl 20 par value

product group statistics	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973
in Hfl million										
sales										
man-made fibers										
textile uses	3,105	3,427	2,663	2,817	2,633	2,590	2,834	2,880	3,386	3,497
industrial uses	1,254	1,251	1,119	1,035	934	1,008	970	827	1,142	901
	4,359	4,678	3,782	3,852	3,567	3,598	3,804	3,707	4,528	4,398
chemical products										
salt and heavy chemicals	2,269	2,398	2,174	2,237	1,794	1,854	1,722	1,428	1,653	1,204
specialty chemicals	1,548	1,613	1,375	1,244	1,122	1,144	1,061	824	991	753
	3,817	4,011	3,549	3,481	2,916	2,998	2,783	2,252	2,644	1,957
coatings	1,572	1,513	1,432	1,221	1,049	975	941	836	772	638
pharmaceuticals	1,563	1,484	1,320	1,274	1,211	1,099	1,071	971	819	706
consumer products	1,055	1,013	869	725	696	611	789	779	679	539
miscellaneous products	1,976	1,959	1,670	1,595	1,349	1,274	1,362	1,172	1,319	1,180
	6,166	5,969	5,291	4,815	4,305	3,959	4,163	3,758	3,589	3,063
total	14,342	14,658	12,622	12,148	10,788	10,555				
intra-Group deliveries	(188)	(182)	(169)	(133)	(122)	(122)				
sales to third parties	14,154	14,476	12,453	12,015	10,666	10,433	10,750	9,717	10,761	9,418
operating income (loss)										
man-made fibers	(19)	33	(170)	74	10	(88)	(142)	(326)	223	390
chemical products	89	125	183	253	122	110	134	54	304	145
coatings	97	110	110	98	64	45				
pharmaceuticals	233	190	145	134	140	133				
consumer products	47	50	40	31	31	16				
miscellaneous products	51	88	116	132	107	80				
	428	438	411	395	342	274	313	255	245	229
total	498	596	424	722	474	296				
nonallocated costs	(5)	(32)	(8)	(33)	(53)	(56)				
operating income (loss)	493	564	416	689	421	240	305	(17)	772	764
invested capital										
man-made fibers	2,477	2,328	2,123							
chemical products	1,895	1,851	1,749							
coatings	598	569	585							
pharmaceuticals	701	714	733							
consumer products	295	289	261							
miscellaneous products	1,007	1,058	973							
	2,601	2,630	2,552							
total	6,973	6,809	6,424							
nonallocated invested capital	(92)	(65)	(6)							
invested capital	6,881	6,744	6,418	6,074	5,777	6,014	6,415	7,013	7,033	6,221

For the years 1973 through 1976, intra-Group deliveries and nonallocated costs are deducted from sales and operating income, respectively, of the several product groups. This does not materially affect the comparability with subsequent years.

geographical statistics	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973
in Hfl million										
the Netherlands										
sales by area of destination	1,561	1,460	1,454	1,419	1,289	1,284	1,295	1,218	1,302	1,126
sales by area of origin	4,528	4,699	4,255	4,212	3,623	3,585	3,706	3,237	3,554	2,903
operating income	75	133	117							
expenditures for property, plant and equipment	338	303	246	170	180					
invested capital	2,288	2,143	2,095	2,069	1,983	1,962	2,286	2,255	2,277	1,990
number of employees	22,600	23,000	23,600	23,700	24,300	25,400	27,600	29,700	30,600	29,700
Federal Republic of Germany										
sales by area of destination	2,168	2,266	2,198	2,243	1,966	1,932	2,056	1,939	2,115	1,925
sales by area of origin	3,395	3,385	3,106	3,087	2,825	2,658	2,727	2,547	2,819	2,520
operating income	128	105	66							
expenditures for property, plant and equipment	136	138	130	100	96					
invested capital	1,688	1,660	1,578	1,613	1,576	1,690	1,622	1,835	1,846	1,627
number of employees	19,400	20,200	21,000	21,200	21,300	21,800	23,800	26,000	28,800	28,500
other EEC countries										
sales by area of destination	3,398	3,431	2,966	2,791	2,348	2,143	2,198	2,020	2,229	1,904
sales by area of origin	1,561	1,633	1,498	1,287	1,161	1,055	1,003	994	1,124	1,093
operating income	100	78	46							
expenditures for property, plant and equipment	37	43	63	44	36					
invested capital	645	601	632	583	541	521	393	633	743	636
number of employees	7,200	8,200	9,600	9,600	10,200	10,000	11,000	13,400	14,700	14,400
rest of Europe										
sales by area of destination	1,739	1,845	1,750	1,732	1,384	1,473	1,646	1,432	1,531	1,302
sales by area of origin	831	825	718	711	573	561	712	685	691	617
operating income (loss)	64	31	37	56	40	(2)	16	10	68	
expenditures for property, plant and equipment	31	52	36	16	11	11	36	76		
invested capital	264	332	309	329	254	303	433	507	495	459
number of employees	5,500	5,800	6,400	6,300	6,000	6,300	7,600	7,800	8,100	8,200
North America										
sales by area of destination	3,241	3,375	2,362	2,413	2,315	2,334	2,292	2,018	2,318	2,182
sales by area of origin	3,048	3,210	2,253	2,224	2,027	2,133	2,147	1,909	2,163	2,008
operating income (loss)	(24)	99	45	113	99	87	53	103	166	
expenditures for property, plant and equipment	148	139	150	117	93	87	103	134		
invested capital	1,695	1,721	1,542	1,291	1,188	1,339	1,459	1,556	1,387	1,294
number of employees	13,400	14,900	16,000	16,200	15,600	15,300	15,500	16,100	17,100	20,100
rest of the world										
sales by area of destination	2,047	2,099	1,723	1,417	1,364	1,267	1,263	1,090	1,266	979
sales by area of origin	791	724	623	494	457	441	455	345	410	277
operating income	150	118	105	79	86	72	90	57	64	
expenditures for property, plant and equipment	40	18	20	14	18	20	15	54		
invested capital	301	287	262	189	235	199	222	227	285	215
number of employees	5,600	5,700	6,500	6,000	5,800	5,600	5,600	5,200	6,100	4,900

Principal companies of the Akzo Group

December 31, 1982

Percentages of participation are only stated for companies in which Akzo N.V. holds a direct and/or indirect interest of less than 95% in voting stock.

Enka, Wuppertal — **Federal Republic of Germany (F.R.G.)**

man-made fibers, machinery, plastics, membranes, nonwovens, films, various industrial products

Enka B.V., Arnhem	Netherlands	
Enka International B.V., Arnhem	Netherlands	
Akzo Plastics B.V., Arnhem	Netherlands	
Colbond B.V., Arnhem	Netherlands	
Enka AG, Wuppertal	F.R.G.	
Barmag Barmer Maschinenfabrik AG, Remscheid-Lennep	F.R.G.	
with establishments in Switzerland*, U.S.A., Brazil*, and Hong Kong		
Kuag Textil AG, Wuppertal	F.R.G.	
Membrana GmbH, Wuppertal	F.R.G.	
Italenka S.p.A., Milan	Italy	
Enka Austria AG, Vienna	Austria	(93)
La Seda de Barcelona S.A., Barcelona	Spain	(57)
Cyanenka S.A., Prat de Llobregat	Spain	(44)
Fibras Químicas S.A., Monterrey	Mexico	(40)
Polyenka S.A., São Paulo	Brazil	(51)
COBAFI Companhia Bahiana de Fibras S.A., Camaçari	Brazil	(45)
Enka de Colombia S.A., Medellín	Colombia	(48)
Enkador S.A., Quito	Ecuador	(48)
Century Enka Ltd, Calcutta	India	(39)

Akzo Zout Chemie, Hengelo (O) — **Netherlands**

salt, chlorine, alkali products, vinyl chloride monomer, methanol, petrochemicals

Akzo Zout Chemie Nederland B.V., Hengelo	Netherlands	
Methanol Chemie Nederland v.o.f., Delfzijl	Netherlands	(50)
Methanor v.o.f., Delfzijl	Netherlands	(28)
Delamine B.V., Delfzijl	Netherlands	(35)
ROVIN Rotterdamse Vinylunie v.o.f., The Hague	Netherlands	(50)
Norddeutsche Salinen GmbH, Stade	F.R.G.	
Elektro-Chemie Ibbenb. GmbH, Ibbenbüren	F.R.G.	(50)
Konezo, division of Akzo België N.V., Brussels	Belgium	
Dansk Salt I/S, PR Mariager	Denmark	(50)
CIRNE – Companhia Industrial do Rio Grande do Norte, Macau	Brazil	
Denak Co. Ltd, Tokyo	Japan	(50)

Akzo Chemie, Amersfoort — **Netherlands**

specialty chemicals, organic chemicals, industrial chemicals, catalysts

Akzo Chemie Nederland B.V., Amersfoort	Netherlands	
Cyanamid-Ketjen Katalysator B.V., Amsterdam	Netherlands	(50)
Silenka B.V., Hoogezand	Netherlands	(33)
Akzo Chemie GmbH, Düren	F.R.G.	
Carbosulf Chemische Werke GmbH, Cologne	F.R.G.	(67)
Rhodanid Chemie GmbH, Cologne	F.R.G.	(67)
Akzo Chemie, division of Akzo België N.V., Mons	Belgium	
Amdic S.A., Mons	Belgium	(50)
Soc. des Dérivés Azotés S.A., Mons	Belgium	
Akzo Chemie France S.à.r.l., Venette	France	
Akzo Chemie Italia S.p.A., Arese	Italy	
Akzo Chemie U.K. Ltd, Gillingham	U.K.	
Interstab Chemicals Inc., N. Brunswick, New Jersey	U.S.A.	
Poliquíma Indústria e Comércio, division of Akzo Indústria e Comércio Ltda, São Paulo	Brazil	
Nippon Ketjen Co. Ltd, Tokyo	Japan	(50)
Kayaku Noury Corp., Tokyo	Japan	(50)
Lion Akzo Co. Ltd, Tokyo	Japan	(50)

Akzo Coatings, Hoofddorp — **Netherlands**

paints, stains, synthetic resins, adhesives

Sikkens B.V., Sassenheim	Netherlands	
Koninklijke Talens B.V., Apeldoorn	Netherlands	
Kunstharsfabriek Synthese B.V., Bergen op Zoom	Netherlands	
Akzo Farben Beteiligungs-GmbH, Stuttgart	F.R.G.	
Deutsche Akzo Coatings GmbH, Stuttgart	F.R.G.	
Austro-Lesonal GmbH, Salzburg	Austria	
Akzo Coatings, division of Akzo België N.V., Ternat	Belgium	
Astral S.A., Paris	France	
with establishments in Morocco*, Senegal*, Ivory Coast*, and Cameroun*		
Dacral S.A., Paris	France	(48)
Sikkens U.K. Ltd, London	U.K.	
Akzo Coatings Italia S.r.l., Milan	Italy	
Ivanow S.A., Barcelona	Spain	
Svenska Sikkens AB, Tyresö	Sweden	(50)
American Sikkens Inc., Philadelphia, New Jersey	U.S.A.	
Miluz S.A.I.C.I. y F., Buenos Aires	Argentina	
R. Montesano S.A. – Tintas Wanda, São Paulo	Brazil	
Metropolitan Paint Factory Ltd, Bangkok	Thailand	(55)
Toa Akzo Coatings Ltd, Tokyo	Japan	(50)

* participation less than 95%

Akzo Pharma, Oss **Netherlands**

ethical drugs
(Organon International B.V., Oss, the Netherlands)
hospital supplies and equipment
(Organon Teknika N.V., Turnhout, Belgium)
nonprescription products
(Chefaro International B.V., Rotterdam, the Netherlands)
raw materials for the pharmaceutical industry
(Diosynth B.V., Oss, the Netherlands)
veterinary products
(Intervet International B.V., Boxmeer, the Netherlands)

Sales offices or production plants of one or more of the above companies are established in:

- the Netherlands, Federal Republic of Germany, Belgium, France, Italy, United Kingdom, Republic of Ireland, Denmark, Norway, Sweden, Finland, Switzerland, Spain, Portugal, Greece, Turkey
- United States
- Mexico, Argentina, Brazil, Chile, Ecuador, Venezuela
- Lebanon, Iran*, Bangladesh*, India*, Malaysia, Pakistan*, Thailand, South Korea*, Indonesia*, Philippines, Hong Kong, Japan*
- Australia, New Zealand
- Morocco, Nigeria*, South Africa

Akzo Consumenten Produkten, The Hague **Netherlands**

detergents and cleaning products, health and bodycare products, foodstuffs

Kortman & Schulte B.V., Dordrecht	Netherlands	
Otarès B.V., Enschede	Netherlands	
Grada Producten B.V., Amsterdam	Netherlands	
Duyvis Recter B.V., Veenendaal	Netherlands	
Aerofako B.V., Apeldoorn	Netherlands	
Boldoot Intec B.V., Apeldoorn	Netherlands	
Kon. Fabr. T. Duyvis Jz. B.V., Zaanstad	Netherlands	
Rotterdamsche Margarine Industrie ROMI B.V., Vlaardingen	Netherlands	
Kortman, division of Akzo België N.V., Brussels	Belgium	
Ashe Laboratories Ltd, Leatherhead	U.K.	
Mayolande S.A., Seclin	France	(90)
A/S Blumøller, Odense	Denmark	
Tomten A/S, Sandvika	Norway	

Akzona Inc., Asheville, North Carolina **U.S.A.**

man-made fibers, specialty chemicals, leather, wire, cable, electronic/electrical devices, salt, pharmaceuticals, various industrial products

American Enka Co., Enka, North Carolina	U.S.A.
Armak Co., Chicago, Illinois with establishment in Canada	U.S.A.
Armira Corp., Sheboygan, Wisconsin	U.S.A.
Brand-Rex Co., Willimantic, Connecticut with establishments in Canada, United Kingdom, and Switzerland	U.S.A.
International Salt Co., Clarks Summit, Pennsylvania with establishments in Canada and the Netherlands Antilles	U.S.A.
Organon Inc., West Orange, New Jersey with establishment in Canada	U.S.A.
Membrana Inc., Wilmington, Delaware	U.S.A.

Other companies

N.V. Verenigde Instrumentenfabrieken Enraf-Nonius, Delft (medical equipment, etc.)	Netherlands	(15)
Akzo Engineering B.V., Arnhem	Netherlands	
Akzo Systems B.V., Arnhem	Netherlands	
Rijnconsult B.V., Arnhem	Netherlands	

* participation less than 95%

Dividends are paid through the following banks:

the Netherlands

Amsterdam-Rotterdam Bank
Algemene Bank Nederland
Bank Mees & Hope
Nederlandse Credietbank
Nederlandse Middenstandsbank
Pierson, Heldring & Pierson
Rabobank Nederland
at their offices in Amsterdam, Rotterdam, The Hague, Utrecht (Rabobank Nederland), and Arnhem, if established there

Federal Republic of Germany

Deutsche Bank
Deutsche Bank Berlin
Bank für Handel und Industrie
Berliner Handels- und Frankfurter Bank
Dresdner Bank
Sal. Oppenheim jr. & Cie
at their offices in Düsseldorf, Frankfurt/Main, Hamburg, Cologne, Berlin (West), and Wuppertal, if established there

Belgium

Generale Bankmaatschappij
Bank van Parijs en de Nederlanden België
Kredietbank
at their offices in Brussels and Antwerp

Luxembourg

Banque Générale du Luxembourg, Luxembourg

United Kingdom

Barclays Bank
Midland Bank
at their offices in London

France

Lazard Frères & Cie
Banque Nationale de Paris
at their offices in Paris

Austria

Creditanstalt-Bankverein, Vienna

Switzerland

Schweizerische Kreditanstalt, Zurich
Schweizerische Bankgesellschaft, Zurich
Schweizerischer Bankverein, Basel
and the Swiss branch offices of these banks
Pictet & Cie, Geneva

U.S.A.

The Chase Manhattan Bank, New York

Akzo N.V. common stock is listed on the following stock exchanges:

the Netherlands:	Amsterdam
Federal Republic of Germany:	Frankfurt/Main, Düsseldorf, and Berlin (West)
Switzerland:	Zurich, Basel, and Geneva
France:	Paris
Belgium:	Brussels and Antwerp
United Kingdom:	London
Austria:	Vienna
Norway:	Oslo

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